State of California

PROCEDURES

Required for Use of the

OPTICAL VOTE-TRAKKER™ Voting System

These procedures have been adopted by the Secretary of State pursuant to Elections Code sections 19100 and 19205 and shall regulate and govern the use of the OPTICAL VOTE-TRAKKER™ Voting System at all elections governed by the California Elections Code.

These procedures shall be effective beginning [ ] and shall be used in conjunction with all other statutory and regulatory requirements. Insofar as feasible, all procedures prescribed herein shall be carried out in full view of the public.

These procedures constitute a minimum standard of performance. They are not intended to preclude additional steps being taken by individual election officials to enhance the security and reliability of the electoral process.

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1 THE OPTICAL VOTE-TRAKKER™ VOTING SYSTEM

1.1 THE OPTICAL VOTE-TRAKKER™ VOTING SYSTEM CONSISTS OF:

1.1.1 Commercial Scanner Operating with VOTE-TRAKKER™ EVC 308-SPR Voting Module (minus printer module) or standalone computer

Any commercial scanner with the capability specified by Avante International Technology, Inc. can be used to read the ballots in OPTICAL VOTER-TRAKKER™ system. To summarize, the scanner must have automatic paper feeding capability and be able to read both sides of the page in one pass, detect multiple feeds, resolution of 200 dpi or better, and be of a scanning speed that meets the needs of the County.

Multiple scanners may be used to speed up the ballot reading process for the absentee ballots. When used as a precinct based system, the commercial scanner is used to check the selections made on the ballot prior to the voter submitting their ballot. This allows the voter to correct the ballot for missed contests/measures, confirm that their selections are correctly deciphered by the voting system, and to spoil their ballots (up to two times) to correct for over voting. While a standard off-the-shelf computer may be used, typically, the VOTE-TRAKKER™ EVC 308-SPR voting module is recommended for linking with the suitable AVANTE recommended commercial off-the-shelf document imaging scanner.

EVC 308-SPR voting module is a laptop computer-based, touch-screen voting system. When the voting module is used as part of the OPTICAL VOTE-TRAKKER operation, it is used as voter interface only during the poll opening hours. During that phase of operation, the ballots are not counted but rather simply to serve as review and confirmation tool for the voters. At the end of the poll hours, upon entering the proper passwords (system access cards) by the polling officials, the counting software is activated to count the voter verified paper ballots. The basic voting module comprises of a notebook computer with a 14.1” LCD display touch-screen or 15” touch-screen.

EVC 308-SPR machine includes a printer module that provides a voter verifiable paper record after the voter casts his or her ballot when used as DRE voting function. In this case, the printer if used will only be used for printing zero report before the official tallying of paper ballots and tallies after the official scanning and tallying after the close of the poll. The printer can also be connected only when they are needed.

During the precinct-based voting use of OPTICAL VOTER-TRAKKER™, standard sealed plastic (partial or completely transparent) ballot boxes are used to collect the ballots after voter verification of their paper ballots.

A more elaborate ballot collector system is also available as optional accessory for the precinct-based voting. This electronically controlled paper ballot box includes an automatic “store” and “return” mechanism. This accessory ballot box will either store the paper ballot when the voter indicates that they are satisfied with the preview of their marked ballot, or

return the ballot for correction or modification if the voter indicates that they wish to make changes.

The printer module weighs approximately 18 pounds with full roll of thermal paper. The voting unit with touch-screen weighs approximately 16 pounds. While the touch-screen voting module may be used independently without the printer, it is normally used and linked to the printer module with a parallel printer cable. The parallel printer cable is attached permanently on the voting unit side. Each of the modules has its own power cord to be plugged into a UPS for normal voting operation.

VOTE-TRAKKER™ and OPTICAL VOTE-TRAKKER™ both use the same relational database (SQL Server from Microsoft) operating under the Microsoft Windows® 2000 Professional operating environment. The functioning programs that generate the respective ballots and interface with the voter data entry via the touch-screen are written in the Visual Basic programming language and Visual C for system control.

The software covers the processes of System Administration, Security Management, Generating Ballot Data for both DRE and OPTICAL ballots, Generating VID, Ballot Loading and Pre-Election Management, Voting, Tallying and Reporting Modules. The VOTE-TRAKKER™ election process is based on the Ballot Database. This relational database created in the SQL environment begins with the Manage Ballot Data module.

The VOTE-TRAKKER™ can interface with an outside Election Information Management System (EIMS). This interface is custom built to map election data created on another EIMS using the powerful Data Transformation Services function within SQL. The empty ballot database is supplied with election specific data by the Generate Ballot Data and Generate VID modules. These modules add the candidate, contest, measure, and voter access information to the Ballot Database. The Generate Ballot Database is also used to manage poll worker user names and passwords. Once completed, the working ballot is transferred back to the Manage Ballot Data module where the Ballot Database is written to a “write-once-read-many” Compact Disc (CD-R).

Using the Load Ballot Data module, the Ballot Database is installed in the voting machine using either the CD-R (one voting machine at a time) or by wireless transmission (several voting machines simultaneously within a secure control environment).

If wireless transmission is selected as the means to load ballots, the process can only be activated after loading the ballot from a CD-R to a chosen host unit. This preserves the integrity of the original Ballot Database by having the stored settings loaded on the CD-R prior to propagating the Ballot Database to the voting machines. The recommended maximum number of voting machines that are on the wireless network at one time is 30.

The voting machine uses the Voting module to interface with the voter. The Logic and Accuracy tests are also performed on the voting machine using a function within the Voting module.

The optional SMART-TRAKKER™ inventory management system helps manage the flow of equipment, ensures the correct ballots are loaded onto the proper voting machines, and notifies for pending routine voting machine servicing. It uses the RFID smart tags that are optionally embedded inside the voting unit and the printer module as part of the automatic identification means. Suitable antenna reader arrays are positioned in judicially locations to ensure automatic documentation of the removal and return of any specific unit.

After the election is completed, ballot totals are sent via a physical electronic storage media (CD-R) or over a network to the Tally module that resides on the ballot generation computer.

The Tally module inputs the vote totals into the same completed working Ballot Database that was sent to the Manage Ballot Data module during ballot generation.

1.1.2 Paper Ballot

Please refer to the detailed definition in section 1.2.

1.1.3 Commercial Ballot Printer

Any commercially available laser printer with the capabilities specified by AVANTE International Technology, Inc. may be used to print the paper ballots. Preferred printers are those that can print in duplex manner and with minimum resolution of 400 dpi. All printers used for printing ballots must perform a pre-qualification printing of sample ballots used for logic-and-accuracy testing. One of the two standard scanners (DR-5020 by CANNON and FI-4120C) will be used for all qualification testing.

Size, speed, and quantity are chosen by the County to meet demand.

Papers used to print the ballots must be those authorized by the Secretary of State. Only printer companies that have been pre-certified by the SOS are authorized to print ballots for OPTICAL VOTE-TRAKKER™.

1.1.4 Precinct Review Unit

This consists of VOTE-TRAKKER™ EVC308-SPR, scanner, and sealed ballot boxes for standard ballots, provisional ballots, and after-hour provisional ballots. It is used to scan the ballot prior to submitting it as cast. The display will show the voter how their vote will be scanned and deciphered.

The displays not only prompt for over votes and under votes but also the selections as made.

1.1.5 Curb-Side Voting Unit:

OPTICAL VOTER-TRAKKER™ when used for precinct-based voting can accommodate the curbside voting in two different ways. The preferred ways will depend on the requirements of the jurisdiction.

There is two means of achieving curbside voting convenience. One involves the placement of the complete OPTICAL VOTER-TRAKKER™ voting system on a lift-cart that can be directly wheeled to the voter. Polling officials can simply unplug the voting system and use the UPS to power the unit during this voting use. The lift-cart is available from AVANTE or other standard commercial suppliers. The lift-cart is used to allow for the height adjustment depending on the specific vehicles of the voters.

It is recommended that the voting system be return to the polling location for additional charging whenever not in use for curbside voting. If extended hours of usage is expected for the curbside voting, AVANT recommends that a standard DC-AC inverter to be used whenever possible or extension cord be provided with proper taping or walk-over protection.

If the machine cannot be utilized where a connection can be made, then use paper ballots per CA Code 19005 which states that "In the case of electrical failure or other emergency, the official conducting the election may direct that ballots may be marked by pencil or ink."

1.2 DEFINITIONS (in alphabetical order)

1.2.1 Ballot:

A paper (normally specified and certified by the State) with printed voting positions and ovals for marking choices. The name of the office, candidates' names, and ballot measures are also printed in accordance with the State election laws and requirements.

1.2.1.1 Ballot Assembly:

A ballot page or group of ballot pages that completely reflecting all positions and contests of the ballot and the sequence.

1.2.1.2 Ballot Page:

All ballots are controlled by the Secretary of State, pursuant to Division 7, Chapter 4, beginning with section 20200 of the California Code of Regulations, and shall be printed with distinctive tints and designs, as required by Elections Code section 13002 and as specified by the Secretary of State.

All printed ballots shall be produced and distributed in accordance with regulations adopted by the Secretary of State.

The ballot for OPTICAL VOTE-TRAKKER™ is a printed ballot page (sometimes refers to as ballot card) on which voters may record their votes by completely filling in designated voting positions of ovals.

1.2.2 Ballot Format:

Typical ballot for OPTICAL VOTE-TRAKKER™ is a three-column format on standard paper width of 8.5-inch (not critical). Ballot paper may be the standard 11-inch, 14-inch or 17-inch. Custom paper size in these ranges may also be used. Ballot formatting also allows 1-5 columns configuration depending on the need for specific contests.

Voting positional characteristics of a ballot varies, such as the number and location of voting positions and/or printed voting information on the ballot page.

The ovals for marking for selections are normally located on the left side immediately next to the name of candidates or selections.

The exception will be those ballots with ranking or cumulative voting provision. In these cases, there will be several ovals located above the name of candidate with each oval marked for ordering of preference.

Ballot formats are specifically approved by the Secretary of State for the OPTICAL VOTE-TRAKKER™ voting system and include the following: full contest information, summary contest information, and numbered ballot positions (only).

1.2.2.1 Full Contest Information:

This ballot format contains all of the contest and ballot measure information printed on the page.

1.2.2.2 Summary Contest Information:

This ballot format contains the candidates' names and titles of ballot measures. The voter uses their sample ballot as a guide to fill in the ballot. This option allows less paper to be used for long ballots.

1.2.2.3 Numbered Ballot Positions:

This ballot format contains only a list of ballot position numbers and ovals. The ballot position numbers correspond to the numbers on the sample ballot. This method is similar to that of the punch-card system replacing punching holes with marked ovals.

1.2.3 Ballot Identifier (BID) Number:

On the top portion of each page of the ballot is printed with a ballot identifier (BID) that comprises of a bar code series that identify the ballot type, the page number, and a unique randomly generated authentication identifier. Typical ballot identifier is a 22-alphanumeric digit barcode. Besides the ballot style and page number of the ballot, it also contains a unique and randomly generated identifier. The unique identifier helps to authenticate the ballot and prevent them from double counting of any ballot and other tampering or unintentional errors. The BID identifiers that have been issued are stored in the database of the Ballot Printing module. This protocol of unique random security code enables the system to validate the ballot as an official ballot.

The ballot style and number of the specific ballot pages are printed on the ballot underneath the barcode. The randomly generated unique identifier number (alphanumeric) may also be optionally printed underneath the bar code.

No association of BID with any voters should be made or allowed.

All ballot pages also include a set of three fiducial markers. Two are located near the barcode and one located on the lower left side of the paper. The markers are in the shape of "+" that allow automatic deciphering of the orientation of the paper ballot during the deciphering process.

The space between the markers allows the shrinkage of paper due to water contents and other distortion to be self-corrected.

Thus, minor distortion via fax will be automatically compensated as long as the barcode can be deciphered. The capability enables the jurisdiction to accept ballots that are faxed in from absentee voters from overseas if such voting protocol is allowed as is currently used in some counties in California. The BID automatically authenticate the ballot to be authentic.

1.2.4 Ballot Layout:

The ballot configuration unique to each precinct or other legal subdivision encompasses all candidates, including any rotation of candidate names, and ballot measures facing voters at that election.

1.2.5 Ballot Statement:

A comparison of the number of ballots received from the elections official by each precinct board with the sum of all precinct voter voted ballots, returned absentee voter voted ballots, provisional voter voted ballots, and all spoiled and unused ballots at the end of an election.

1.2.6 Ballot Type:

A particular combination of candidate offices and ballot measures to be voted on at an election. There may be more than one such combination in a given election because of offices or measures that may be voted on by fewer than all the voters at that election. The rotation of candidate names may also create additional ballot types (styles), as can primary election partisan ballots. This may also be referred to as a "ballot group" or "ballot district."

1.2.7 Destructible Seal:

Any type of serialized device, such as a boxcar seal, used to close a container, room, or area, which requires damage to or destruction of the device to gain access to the contents therein.

Audit trail logs must be maintained recording the sealing, including the seal number, the date and time, and the person's name, as well as the unsealing, including the seal number, the date and time, and the person's name. All audit logs must be signed off by authorized polling official and preferably with witnesses.

1.2.8 Invalid Ballot Identifier (BID) Number:

There are three kinds of invalid BID Numbers.

It can occur when a voter is issued a ballot for the incorrect precinct. The incorrect precinct would appear on the header of the ballot. If this occurs, the ballot is spoiled and a new, correct ballot is issued to the voter.

A second type of invalid BID Number is if the bar code printing is defaced or removed causing a misread. Such ballots will not be read and deciphered automatically. Instead, ballot images are captured and posted for the election official to decide manually. Depending on the rules set either by the State of by local jurisdiction, such ballots may or may not be counted.

The third type involves bogus BID number that does not match with those created as official ballots. The system will not read the ballot. Instead, the ballot image will be captured for the subsequent investigation by the jurisdiction.

1.2.9 Ballot Database:

A Ballot Database refers to the election-specific data package generated from the VOTE-TRAKKER™ Election Management System (a computer loaded with all related software modules). The Ballot Database contains the ballot information (contests, candidates, measures and ballot types, etc.), the VID numbers and the serial numbers of voting machines to be used in the election.

The Ballot Database is copied from the Election Management System onto individual voting machine via a CD-R or the wireless network. The CD-R will only be read by the voting machine if it passes certain security features built in to the software. The wireless loading uses two separate levels of encryption to prevent someone from tampering with the data during transmission. A VOTE-TRAKKER™ voting machine can be used in an election only after the Ballot Database for that election is successfully loaded.

1.2.10 Applied Absentee Voter List:

A list of absentee applicants printed or stored in electronic form in Roster-Index. Each precinct will have a different list unless an integrated countywide list is available such as in early voting operation.

1.2.11 Fleeing Voter:

The fleeing voter is a voter that leaves the voting area without submitting their marked ballots after the sign-out their paper ballots. There may also be cases when voter simply left the paper ballots on the previewing unit. Any ballots that have been left by voters by accident should be placed in the ballot collection box as soon as they are found.

In the cases paper ballots when the voters left with their ballots without submitting, there may be ballot counts that may be less than total number of ballots issued to the voters.

1.2.12 Object Code:

The version of a computer program in which the source code language has been converted or translated by a compiler or assembler into the binary-code machine language of the computer with which it is to be used. These machine instructions are unique to the particular computer processor being used and can be executed directly by the computer processor without further simplification. (Contrast with “Source Code.”)

Only source code that has been certified by the SOS of the State of California may be used to compile into object code for the use of voting. Any change of object code must be made by the County staff under supervision of the management staff and preferably by the presence of authorized staff from AVANTE.

1.2.13 Over Vote:

This condition arises when the voter mark on ballots in attempt to vote for more candidates for an office than there are to be elected. In an office to which one candidate can be nominated or elected, a second vote would create an over vote condition. In the case of ballot measures, a "Yes" vote, a "No" vote, and "Skip Contest (No Vote)" for the same measure creates the over vote condition.

The paper ballots marked by voters for OPTICAL VOTE-TRAKKER™ cannot prevent voters from over-voting. The preview process can only highlight and reminds the over-voting if it occurs on any particular contests or measures. It will be totally up to the voters to correct them if such incidence does occur.

If the voter wishes to correct the over-voted ballot, they will have to return the original ballot to be spoiled by the polling official and sign-out another ballot.

1.2.14 Password Protection:

There is password protection on each voting machine. The county official has two options for entering passwords. They can use the touch screen interface to enter the password or they can use poll worker cards that are read by the machine to gain access to the voting machine functions.

The number of different passwords to access a voting machine is set by the county official during ballot generation by filling in a field in the Ballot Database.

Avante recommends that at least two users and passwords to be used by two different persons to provide access control and management to the voting machine.

1.2.15 Provisional Voter Ballot:

A ballot issued, pursuant to Elections Code sections 14310 and 14311, to a voter claiming to be properly registered, and whose qualification or entitlement to vote cannot be immediately established. The examination of registration records should include the index of registration for the precinct or upon examination of the records on file with the county elections official, including the list of absent or inactive voters.

These ballots will be individually sealed in an affidavit envelope with the voter's signature and other voter registration information. The County or jurisdiction holding the election will provide the affidavit envelope and its format.

1.2.16 Questioned or Challenged Ballot:

A questioned or challenged ballot is also cast in a sealed affidavit envelope like the provisional ballots. They are used when the rights to vote by the specific voters are being challenged by the polling officials or others as provided by state law.

1.2.17 Rank Voting

This is a type of voting where the voter indicates a preferential order among the candidates for a given contest. This means that if there are four people running for office, the voter indicates their first choice, second choice, third choice, etc.

If the person with the most votes does not receive greater than 50% of the "first choice" votes, then an "Instant Runoff" election is held. This type of election drops the candidates with the lowest vote total and adds the second choice from those ballots are moved to the top choice and recounted. This process continues until a candidate has a majority of the votes.

Voters will be asked to vote for five if there are five candidates in the order of their preference for the contest that will use instant-run-off voting. Voter will marked on the ovals associated with each candidate. Typically, there will be as many ovals as the number of candidates. Although less ovals than the number of candidates may also be used. Each oval will have the number underneath for the voter to indicate his or her preference. That is, number 1 underneath the oval when selected will be the first choice by the voter.

While voters can rank all of the choices, they can also rank less as they wished. When scanned for review, the lesser ranking will indicate as "under-vote". If more than one candidate is selected as specific rank of preference, the ballot for that particular ranking will be considered as over-voted.

1.2.18 Semi-Final Official Canvass:

This is the process of collecting, processing, and tallying ballots and, for statewide elections, reporting results to the Secretary of State on election night. The semi-final official canvass may include some or the entire absentee voter vote totals that have been authenticated. The semi-final official canvass is to be submitted to the governing body within 28 days of the statewide election.

1.2.19 Source Code:

The version of a computer program in which the programmer's original programming statements are expressed in a source language (e.g., Visual C++, Visual Basic, etc.) which must be compiled, or assembled, and linked into equivalent machine-executable object code, thereby resulting in an executable software program. Source coding comprises seven modules:

Manage Ballot Data, Load Ballot Data, Generate Ballot Data, Generate VID, Voting, Event Log, and Tally. (Contrast with "Object Code.")

Only source code that has been certified by the SOS of the State of California may be used to compile into object code for the use of voting. Any change of object code must be made by the County staff under supervision of the management staff and preferably by the presence of authorized staff from AVANTE.

1.2.20 Spoiled Ballot:

A ballot issued to a voter and returned by the voter for another ballot because of error the voter made while voting. A spoiled ballot can also be a ballot of the incorrect type issued to the voter in error and returned by the voter for the correct ballot type.

All spoiled ballots must be properly marked and signed off and kept as part of the official records so that the ballot counts can match with the number of voters voted.

1.2.21 Tests:

1.2.21.1 Accuracy Tests:

Accuracy tests verify that the vote tallying hardware is operating correctly. The accuracy test deck consists of a known number of ballots with a known number of voted response positions. See Section 2 for a description of the test program. The county staff conducts the testing. The Logic and Accuracy Board verifies and certifies the test (see Appendix A for the form).

1.2.21.2 Logic Tests:

Logic tests must be run both before and after an election. The logic tests may sometimes be performed during processing official ballots for an election in the central count process. The logic test program has predetermined totals (see Section 2) for all contests on the ballot, with every candidate in a contest receiving a different number of votes than any other candidate in that contest.

The output from the logic test is usually in the form of a press release bulletin, signed by the Logic and Accuracy Board prior to certification and submission of vote tally programs and files to the Secretary of State not less than seven days before the election.

Each time a logic test is produced, a Logic and Accuracy Board Member, should verify and sign the output. The Logic and Accuracy Board verifies and certifies the test (see Appendix A for the form).

The logic-and-accuracy (L&A) testing for OPTICAL VOTE-TRAKKER™ can be done with ballots pre-filled by the printer in accordance to specific script. Typically, the script provides

the first choice or candidate one vote, the second candidate two votes, etc. This L&A testing with the prescribed script ensure that every oval to be filled at least once. The increasing votes based on the number of choices assure the logic to be tested as well as the accuracy.

1.2.21.3 System Proofing:

System proofing verifies that all materials, files, and programs for an election are correctly prepared. This proofing is normally completed in approximately two weeks before any election. This period is usually consisting of 40 days to approximately 14 days prior to Election Day. Accuracy and Logic tests are included in system proofing.

1.2.22 Test Voting Ballot:

A test voting ballot with pre-marked ovals to test the voting machine manually. This type of ballot with pre-marked contains the same ballot type information as standard ballot. However, the system will recognize them to be test ballot only. They were primarily designed for Logic and Accuracy testing.

Any testing or demonstration can only be used for preview only. They will not function once the system is change to tallying mode for to count all of the submitted ballots.

1.2.23 Tracking Point:

As used in Sections 3.6.8 through 3.6.11, a tracking point establishes an audit trail during the canvass.

1.2.24 Under vote (Skip Contest Oval):

The condition that arises when the voter votes for fewer candidates than the number of candidates to elect, or does not vote either for or against a measure.

If the voters choose not vote for a particular contest or measure, they may simply fill in the "Skip Contest" oval. The voters are to be advised to fill in these ovals whenever appropriate. This ensures that their intent to no make a selection for that contest or measure is clear.

Whether the voters fill in the "Skip Contest" ovals or simply not marking on any ovals, as long as lesser ovals than the contest allows will be counted as under-vote.

If "Skip Contest" is filled, the under-vote may be considered as intentional under-votes.

1.2.25 Voter Types:

There are two types of voters:
1) The regular or registered voters (including precinct-based and early voting) voters; and
2) Provisional voters (voter registration and privilege is not yet confirmed) that will use the OPTICAL VOTE-TRAKKER™ for voting.

1.2.25.1 Regular Voter:

Regular voters are those registered voters who vote at polling places, including early voting precincts.

1.2.25.2 Provisional Voters:

At all elections, a voter claiming to be properly registered but whose qualification or entitlement to vote cannot be immediately established upon examination of the index of registration for the precinct or upon examination of the records on file with the county elections official, shall be entitled to vote.

They shall vote using provisional ballot along with proper affidavit envelope.

1.3 DESCRIPTION OF THE OPTICAL VOTE-TRAKKER™ PROCESS

The OPTICAL VOTE-TRAKKER™ is a Marksense style voting system. The ballots used can be pre-printed for distribution with careful control. The ballots can also be printed whenever the need arise. The printing ballot only when needed is sometimes called ballot-on-demand.

The ballot is created using the ballot generation software and hardware from the California State approved VOTE-TRAKKER™ system. The ballot database is then used to create the proper ballot styles.

For each voter, a ballot is printed on a commercial laser printer linked to ballot printing computer that contains the ballot style for that voter. The voter uses a number 2 pencil (or softer pencil) or dark color pens to mark their choices by filling in the oval that corresponds to the name of the choice.

"Highlighter" or "accent" markers with minimal pixel for marking should not be used.

The finished ballot is scanned with a commercial document-imaging optical scanner that have been tested and recommended by AVANTE. Orientation marks on the page and the bar code help to identify the ballot type to the scanning system. The computer display will warn of double feedings, over-voting, under-voting, and ballots with missing barcodes or fiducial markers.

A voter is given his or her ballot upon verification on the voter registration log. They will be given the ballot upon signing in at the voting place or mailed the absentee ballots per request.

Upon finishing voting by filling in the ovals next to the candidate or answers to the contests and measures, they will returned the ballot on the signed affidavit and sealed envelope for absentee voting.

For the precinct-based voters, VOTE-TRAKKER™ EVC 308-SPR touch-screen voting module preset for OPTICAL VOTE-TRAKKER™ preview function will be used for voter pre-viewing and confirmation on how the system is reading the marked ballot. After the voters confirmed their ballots as marked by reviewing the display of each of their selections, they can submit their ballot in a sealed box. The provisional voters will signed and sealed their ballots in the affidavit envelopes and return to the polling officials for subsequent canvassing.

To write-in a candidate, voter must first fill in the oval next to the "Write-in" line. The voter then spells out the name of the candidate as clearly as possible. Only those candidates that have been pre-registered and approved will be actually tallied. The "write-in" candidates will be deciphered manually. They will be automatically "carved" out from the ballot image captured for easier manual deciphering during the canvassing phase of the election.

Voters registered their intents in ballot measures by filling in the respective oval next to "Yes" or "No" or "Skip Contest/No Vote" choice.

In case of blind and visually impaired voters, the polling official will help the voter to the standard DRE VOTE-TRAKKER™ EVC 308-SPR touch screen voting unit.

From the Tally module, all of the ballot images and event logs are consolidated. Thee data can be retrieved and reviewed in list form. Each ballot image can be printed from the Voting module using any office printer.

There is a Ballot Image printing function available within this module for printing every screen if that is required. Ballot images can be printed for all precincts or for selected precincts.

1.3.1 Commercial Laser Printer:

A commercial laser printer can be used to print the ballots. There are no special paper requirements other than those specified and required by California Law. The commercial laser printer with more than 400 dpi is preferred to print to sufficient legibility by the voter and readability by the scanner. AVANTE recommends that all new printing of ballots be performed with a new cartridge of toners (inks) so as to ensure proper printing. AVANTE also recommends the use of duplex printer that enables the printer to print on both sides of the paper. Even if a complete ballot can be printed on single side of the paper, AVANTE recommends the printing of BID on the second side of the ballot for ease of detection of multiple page feeding.

1.3.2 Commercial Scanner:

The OPTICAL VOTE-TRAKKER™ system does not require proprietary hardware for scanning the ballots. A commercial off-the-shelf document imaging scanner with better than 200 dpi at the scanning speed used for the operation is used to scan the entire paper ballot into an electronic image. This image is an exact picture of the paper ballot. This picture can be used to electronically review the ballot for interpretation of voter intent.

1.3.3 Software modules:

The VOTE-TRAKKER™ election process is based on the Ballot Database. This relational database created in the SQL environment begins with the Manage Ballot Data module. The empty ballot database then is transferred to the Generate Ballot Data and Generate VID modules. These modules add the election information to the Ballot Database. The Generate Ballot Database is also used to manage user names and passwords. Once completed, the Working Ballot is transferred back to the Manage Ballot Data module where a Ballot Database is written to a CD-R.

Using the Load Ballot Data module, the CD-R transfers the Ballot Database to the ballot-printing computer. The ballot-printing computer uses the ballot-printing module to create the paper ballots.

The Logic and Accuracy tests are also performed using the ballot-printing module. The ballots required for the Logic and Accuracy tests can be pre-printed with the correct ovals automatically. After the ballot scanning is completed, ballot totals are sent via CD-R or floppy disk to the Tally module.

The Tally module inputs the vote totals into the same completed working ballot database that was sent to the Manage Ballot Data module.

The Event Log module records all actions of each module.

1.3.4 Precinct Review Unit

This consists of a computer-display (VOTE-TRAKKER™ EVC308-SPR), scanner, and sealed ballot boxes. It is used to scan the ballot prior to submitting them.

The precinct review screen shows the voter how their ballot will be scanned and deciphered. The display also shows the selections made for each contest by the voters. It also alerts the voter for any over-votes and under-votes with color and bracketed marks for voters with different color discerning capability.

1.3.5 Performance Requirements:

The following outlines the general OPTICAL VOTE-TRAKKER™ performance requirements. The OPTICAL VOTE-TRAKKER™ shall:

- Provide facilities for voting for such candidates as may be nominated and upon such questions as may be submitted.
- In the case of a contest for an elected position, each contest will display all of the qualified candidates based on the drawn alphabet order, alphabet rotation, and/or precinct rotation as required by the jurisdiction. The candidates will appear in same font size and occupy the same area of space on the screen. These spaces occupied by the candidates constitute the selection touch buttons when the voter selects the specific candidates. The maximum number of candidates that can be display on a single ballot page will depends on the length of the ballot page from 11-inch, 14-inch and 17-inch and may be as high as 300 or more. As much as possible, all of the candidates for a specific contest should appear on the same ballot page for easier selection.
- When more than one candidate is to be elected, the voters will be asked to choose for the respective number of candidates including adequate write-in spaces for as many write-in candidates.
- In the case of measures, “YES” and “NO” are the normal choices available.
- For all contests, OPTICAL VOTE-TRAKKER™ provides a selection of a “Skip Contest/No Vote” touch-button so that voters can elect not to vote in that specific contest. This choice may also be disabled by the jurisdiction if they deem it to be more appropriate.

- Permit each voter in a presidential general election to vote by selecting one box for electors for a pair of candidates for President and Vice President of the United States.
- If write-in candidates are to be entered, VOTE-TRAKKER™ provides the write-in with a slate as well. The voter must enter two names: one for the position of President and one for the position of Vice President in order to complete the write-in candidate.
- All contest positions in an election shall be provided with a "write-in" ovals and write-in space. Once this oval is filled, the write-in candidates will be automatically tabulated for easier manual deciphering during the canvassing phase.
- Permit each voter to vote at any election, for any person, for any office, for as many persons for an office, and for or against any question for which the voter is entitled;
- OPTICAL VOTE-TRAKKER™ presents each contest and measures and their corresponding marking ovals in accordance with the CA State election code.
- OPTICAL VOTE-TRAKKER™ preview program will display all of the selections made by the voters.
- Voters will be alerted with display of exactly how he or she over-voted and under-voted on a specific contest or measure.
- When voter filled in the oval next to the choice of "Skip Contest / No Vote", that particular contest or measure will be counted as intentional undervote.
- Voters will be given up to two chances to spoil their ballots. The third ballot will be considered final ballot.
- Be capable of adjustment by means of ballot settings during the ballot generation process by election officers, so as to permit the jurisdictions in primary elections to print only for the candidates seeking nomination of the political party with which they are affiliated. Abbreviated primary ballots with reduced candidates can be printed for those non partisan voters or affiliated with other political parties that allowed to participate for the candidates of public positions.
- In a primary election, OPTICAL VOTE-TRAKKER™ prints and provides the voter the choices of the party ballots that they are qualified to vote depending on the voter's party affiliation.
- Once the ballot for the specific party is selected, only those candidates that the voter is allowed to vote for will appear for selection. The specific ballot type of that particular party ballot will be presented based on the voter party affiliation as registered in the voter registration database.
- Permit non-partisan voters to vote either a non-partisan ballot or a party ballot for any political party that has chosen to allow non-partisan voters to participate in its primary election.
- Enable the jurisdiction to use the "ranking" voting function to allow voters to rank the order of their preferences. Subsequently, the ranking can be used for instant run-off if no candidates meet the election criteria of 50% or other percentage as required for that particular position.
- Enable the jurisdiction to use the "cumulative" voting function so that voters can cast as many votes on a candidates or the combination of candidates as the specific contest permits.
- Permit and require voting in absolute secrecy, and the voting booth shall be so constructed that no person can see or know for whom any other voter has voted or is voting, except voters receiving assistance as prescribed by law.

- Jurisdiction should make provision so that adequate space is arranged between voting booth and previewing machines.
- Jurisdiction should make provision so that voters do not have to walk behind a voter in order to access the voting machine that they are assigned.
- If precinct-based system is used, the voting unit shall have a “public counter” which is visible at all times, which shall show during any period of voting the total number of voters who have voted during the applicable period of voting.
- If precinct-based system is used, the voting unit shall have a “protective counter” which is visible at all times, which cannot be reset and which shall record the cumulative total number of votes cast.
- Upon poll closing, the polling officials shall seal all ballots that have not been used.
- Permit the provisional voters to vote on the provisional ballots. Their ballots shall be sealed in signed affidavit envelopes.
- During the open polls period, it shall preclude any person from seeing or knowing the number of votes registered for any candidate by restricting the tally function and from tampering with any of the recorded votes.
- Enable voting with alternate languages with alternate language ballots.

1.3.6 Multi-Language Interface:

The voter can select ballots from multiple alternate languages (as required by law) to vote his or her ballot. Ballots of all required alternate languages must be available in suitable quantity to meet the needs of the local polling places.

Such alternate language ballots shall be exported and sent to a certified translator and then imported back into the system for ballot printing. This direct exporting and importing of ballots allows automatic mapping without manual transposing.

1.3.7 Smart Card Access features:

The smart card system used in VOTE-TRAKKER™ is a contact-less type, Radio Frequency Identification (RFID) card that uses the ISO 14443 standard protocol @ 13.56 MHz. In the case of OPTICAL VOTE-TRAKKER application, only system access cards are used in the polling place for precinct-based voting. The access smart cards are also used by the polling official to open and close polls.

1.3.8 Presence Sensor:

The VOTE-TRAKKER™ EVC 308-SPR uses timer to determine if the voter is still present for making additional selections. When used as voter interface for OPTICAL VOTE-

TRAKKER, voters are given a period of time to examine the ballot as deciphered by the voting system. It is not directly recorded as cast ballot. The voter can terminate the display as soon as they finish.

The system will blank out the display after a preset time to preserve the voter's privacy if the voter did not do so themselves. The timing is settable and controlled by the jurisdiction. The default is set at 60 seconds. It may be adjusted to longer or shorter time depending on the length of the ballot.

The timing of the sensor is adjustable from 5 seconds to 30,000 seconds when preparing the ballot database. Extending the sensor timing to 30,000 seconds will disable the sensor.

1.3.9 Counters:

There are two counters located on the front face of the voting machine. One counter is a Protective Counter. This counter has a LCD display that is always on. It shows the total number of ballots cast on the VOTE-TRAKKER™ during the life of the machine.

The second counter is called Public Counter. The Public Counter is a re-settable counter that displays the number of votes cast for that election on that particular machine. It also has a LCD display that is always on. The reset switch is located under a locked cover behind the voting machine.

These counters are used for DRE voting only. During the OPTICAL VOTE-TRAKKER™ operation, they are not functional. The tally software will be used to indicate the total number of ballots scanned. Any questionable ballots that are not counted will be posted for manual evaluation.

1.3.10 Accessibility Features:

Those voters that need accessibility features to vote will be asked to vote on the DRE VOTE-TRAKKER unit™.

The VOTE-TRAKKER™ is designed to provide 100% accessibility to vote in private and independently by voters who are visually impaired, blind and/or who cannot read. The ballot is read to the voter through headphones (connected to a stereo jack in the front of the machine). A modified standard keyboard (the four corner keys are raised) is used to make the selections in response to the audio ballot. Only the four corner keys of the keyboard are required for most voters.

The alphanumeric keys and the alphabet-scrolling function created with the use of the upper right hand corner keys are used for write-in voting only. No Windows functions keys are active that could allow the voter to gain access to the voting machine's operating system.

1.3.11 Curbside Voting:

The curbside voting for OPTICAL VOTE-TRAKKER with EVC 308-SPR voting module can be achieved with a lift-cart holding the system. The specific lift cart is available from AVANTE as well as many commercial distributors. The lift-cart chosen for use should have adjustable height to accommodate the different makes of vehicle.

Alternatively, if the jurisdiction decides that voter verifiable paper record is not a requirement or requirement for curbside voters, the touch-screen module can be hand carried to the voters.

1.3.12 Software modules:

The OPTICAL VOTE-TRAKKER™ election process is based on the Ballot Database. This relational database created in the SQL environment begins with the Manage Ballot Data module. The empty ballot database then is transferred to the Generate Ballot Data and Generate BID (Ballot Identifier) or Voter Identifier (VID) modules. These modules add the election information to the Ballot Database. The Generate Ballot Database is also used to manage poll worker user names and passwords.

The OPTICAL ballot is completed at the same time when DRE ballot is completed. That includes ballot to be printed in alternate languages. The OPTICAL VOTE-TRAKKER™ ballots can be printed in advance or on-demand. All of the ballots are printed with randomly generated BID and must also be transferred to the ballot scanning computer such as the EVC308-SPR voting module so that the correct and authentic ballots can be recognized.

Once completed, the working ballot is transferred back to the Manage Ballot Data module where a Ballot Database is written to a CD-R. Using the Load Ballot Data module, the CD-R transfers the Ballot Database to the voting machine.

The voting machine uses the Voting module to interface with the voter. In the case of OPTICAL VOTE-TRAKKER™ precinct-based operation, voter will only use the interface for pre-viewing only. Voters submit their verified ballots into a sealed ballot box for tallying later. At the end of the polling period, all of the ballots collected passes through the scanner unit for actual tallying function. The Logic and Accuracy tests are also performed on the voting machine. After the election is completed, ballot totals, images, and event logs are sent via CD-R to the Tally module.

The Tally module inputs the vote totals into the same completed working ballot database that was sent to the Manage Ballot Data module. The Event Log module records all actions of each module.

2 PRE-ELECTION AND TESTING REQUIREMENTS

Functions are outlined in these procedures in five categories: Diagnostic Tests, System Proofing, Accuracy Testing, Logic Testing and Final Preparation.

OPTICAL VOTE-TRAKKER™ testing set forth in this section shall include every OPTICAL VOTE-TRAKKER™ to be used. It is not required that every ballot be tested.

The test procedures described herein are a required MINIMUM and do not preclude additional testing performed at the option of the elections official.

In addition to the following test procedures, those jurisdictions that provide election night results on-line to the Secretary of State must conduct tests required by that office. This test should ensure accurate and timely submission of semifinal official canvass results, and must include hardware and telephone lines used for that purpose in all tests required.

All tests will be conducted using test materials specified herein in such a manner as to meet these guidelines. All tests shall result in reporting that matches predetermined results. Reports and test materials must be retained as prescribed by law.

2.1 OPTICAL VOTE-TRAKKER™ DIAGNOSTICS TESTS

Prior to use in an election, diagnostic tests shall be performed on every OPTICAL VOTE-TRAKKER™ units to be used. The following diagnostic tests shall be performed within 60 days prior to the election.

Any voting machine that is found not to be functioning properly (including hardware and software components), that machine should not be used in any election until the problem is fixed. The repair should be performed either by the vendor or by other contracted service providers.

The following diagnostic tests are performed and the result of such test is verified to be acceptable.

2.1.1 Testing of OPTICAL VOTE-TRAKKER™ Components:

Test the various internal components of the OPTICAL VOTE-TRAKKER™ by loading all ballots printed with their respective ballot identifiers onto the VOTE-TRAKKER™ EVC308-SPR voting module using either the CD-R or wireless methods and following the designated procedures.

The following procedures will be accessed via the “Machine Settings and Testing” function:

- Verifying operation of the Smart Card Reader using system access cards

issued to the polling officials.

- Setting the system date and time
- Testing the touch-screen
- Testing the Printer functions – print reports, capture paper records, check the audible signal, and check font size
- Testing the Timer Sequences for accuracy
- Testing the OPTICAL scanner unit for proper functioning including correct display of all selections as marked
- Testing Public and Protective Counters is not required for OPTICAL VOTE-TRAKKER™
- Testing the detection of storage media by starting up with empty, full, and missing media

2.2 OPTICAL VOTE-TRAKKER™ MACHINE TALLY SYSTEM DIAGNOSTIC TESTS

Prior to use, diagnostic tests shall be performed on the tally system used by the OPTICAL VOTE-TRAKKER™. These tests shall be performed within 60 days prior to the election. If malfunctions are encountered, corrections shall be made and recovery procedures implemented. This test is not in lieu of the Logic and Accuracy Tests. It is a simple initial test to determine that the system is in functional order.

1. Load a test election ballot that contains all of the test ballots with corresponding BID numbers into the OPTICAL VOTE-TRAKKER™ and open the polls.
2. Scan all of the machine marked test ballots per a predetermined script. This means that the tally of ballots cast is known by the tester prior to voting.
3. Look for any unusual errors.
4. Check printed records for accuracy, if applicable.
5. Close polls – the OPTICAL VOTE-TRAKKER™ prints reports and records data to storage media.
6. Review paper report for accuracy.
7. Load tally CD-R disk into tally computer to upload results.
8. Compare to printed report.
9. Review duplicate storage media for correctness of ballot images.

2.3 BALLOT SPECIFICATIONS DIAGNOSTIC TESTING

Once the official paper ballots are printed for the election, a ballot database CD-R is created. To check the pre-viewing function of an OPTICAL VOTE-TRAKKER ballot, the sample ballot is used as a guide.

The California Elections Code requires that the sample ballot provided to the voter be a substantial facsimile of the official ballot, including instructions to voters. To check that the data is complete, perform the following test:

1. Create the ballot database CD-R on the ballot generation computer.
2. Load the ballot into a second (empty) ballot generation computer.
3. Print sample ballots from both computers.
4. Compare these sample ballots with the original information that was used to create the election data.

2.4 SYSTEM PROOFING

System proofing is the mandatory preliminary, in-house testing of all phases of election preparations except for the Logic and Accuracy tests. System proofing shall include, but is not limited to, verification of the correctness of the following:

1. Assignment of jurisdictions participating in the election to ballot styles
2. Linkage of precincts in which the election will be held to ballot style
3. Ballot content of each ballot style, including offices, district designations, candidate assignment and rotation, ballot measures, all in the proper sequence
4. Screen displays of official ballots, including instructions, candidates' names, political and/or occupational designations, number to be elected, candidate rotation (where applicable), ballot measures, voting positions and all column and office headings and designations
5. Formatting of ballots into sample ballot pamphlets for each ballot style
6. Precinct identification coding
7. Election night summary report format
8. OPTICAL VOTE-TRAKKER™ Tally module's recognition of and response to precinct identification codes and ballot machine tallies that are duplicate, damaged, or tampered
9. OPTICAL VOTE-TRAKKER™ voting machine's ability to accept system access cards issued to the polling officials encoded with the proper identification codes, and to reject cards with incorrectly coded information
10. All phases of preparation and assembly of the OPTICAL VOTE-TRAKKER™ components as described variously herein
11. Voter registration data for jurisdictions participating in the election
12. Testing of 100% of the OPTICAL VOTE-TRAKKER™ machines to be used in the election. A testing log of the voting machines will include, but not be limited to:
    - Machine Serial Number
    - Precinct Number Assigned
    - Ballot Style Number(s) loaded
    - Ballot CD-R database name
    - Date Tested
    - Results of test (e.g., GOOD, NO GOOD, % Accuracy)

- Printed names and signatures of testers

2.4.1 Exception Processing:

Exception Processing is part of system proofing and includes a test to determine whether the system properly responds to error or anomaly conditions. At least ten days prior to each election a script shall be prepared by the Election IT department that may cause all non-destructive errors or anomalies for the OPTICAL VOTE-TRAKKER™ system.

The OPTICAL VOTE-TRAKKER™ limits the possibility of exceptions and limits the introduction of incorrect data or procedures. Introducing incorrect or incomplete data into the system should test this robustness of the system. The exception processing test should contain, but is not limited to, the following types of conditions, as they apply to the system:

- Improperly coded BID in ballots
- Missing storage media
- Physically damaged system access cards for polling officials
- Attempting to over vote
- Attempting to gain a second vote with a duplicate ballot with the same BID
- Performing an automatic timing for blanking out preview screen

2.5 PRECONDITIONS FOR THE PERFORMANCE OF LOGIC & ACCURACY TESTS

2.5.1 Set Up of Test:

Prior to Logic and Accuracy tests, the following must be assured:

- Diagnostic tests on all equipment shall have been performed.
- Testing of paper ballots with printed BID shall be performed with the current election ballots. Printing a paper ballot with proper BID for every ballot type performs this test. These paper ballots are marked by hand and scanned and reviewed. Each contest is reviewed for completeness of each ballot type. This is to ensure that the voter interface module is displaying the proper ballot type. The marked ballots that have been tested shall be retained for the permanent record of the election.
- Preparation of test scripts is not required. The OPTICAL VOTE-TRAKKER™ performs it automatically. Additional test scripts can be performed using the manually marked test ballots using a custom test script.
- All OPTICLA VOTE-TRAKKER™ voting machines to be used for Logic and Accuracy testing shall have a ballot loaded with the test ballots with proper BID of the current election.
- All OPTICAL VOTE-TRAKKER™ voting machines with loaded ballots have **not** been opened for polling.

- Review and print out the ballot images of all scanned ballots and stabled with the corresponding marked test ballots.
- Documentation must be prepared by the people responsible for ballot generation to show the known and expected voting results. The documentation is compared against results produced from the tests.

2.6 ACCURACY TESTING

Accuracy testing consists of those processes and procedures necessary to ensure that all hardware used in the election is working properly.

Emphasis is placed on verifying that the OPTICAL VOTE-TRAKKER™ records all results and is able to report the results both on paper and electronically. OPTICAL VOTE-TRAKKER™ voting machine is inherently accurate in interpretation or reading of the ballot when properly marked. However, an accuracy test can point to programming errors or other malfunctioning hardware components.

2.6.1 Performance of Accuracy Tests:

Accuracy tests shall be performed prior to Logic and Accuracy Certification (including amendments and re-certification, if necessary) to the Secretary of State and again within 72 hours prior to processing ballots on Election Day. The accuracy tests may be run more frequently and shall be run after equipment has had maintenance work. Any failure of the equipment to perform as expected must be corrected before using that equipment for election processing, and any ballots tallied on equipment, which failed, shall be recounted.

In the event any OPTICAL VOTE-TRAKKER™ unit fails after official ballot processing has begun, accuracy tests must be successfully run on the (failed) component after it has been repaired, replaced, or adjusted (in a manner deemed sufficient by the responsible elections official to require re-testing for accuracy). Such testing on the accuracy on the specific component must be done before returning that particular component is to be returned to service.

Diagnostic tests of hardware on election night are permitted.

A loss of power is not to be considered a failure for purposes of this paragraph, unless there is no recovery.

2.6.2 Preparation of Accuracy Tests:

The elections official shall cause the election ballot (with all test deck of printed ballots with BID) to be loaded onto the voting machine. The test deck of ballots with test BID and pre-

marked in accordance to a test script is prepared. The software is programmed to print and read all of the ballots that cover the entire election ballots that are loaded.

A custom or specific test script can be created using manually marked ballots.

Predetermined results of accuracy test must be available for inspection and signed off by the Logic and Accuracy Board.

2.6.3 Reusable Accuracy Test Script:

This test script is built into the programming of the OPTICAL VOTE-TRAKKER™.

If the election officials require a different automated test program, AVANTE can customize one to suit their needs. Manual test decks are created by the jurisdiction.

2.6.4 Accuracy Test Report:

When the test is processed utilizing the built in test software, it will produce a report showing votes per the pre-determined settings. This test verifies the ability of the OPTICAL VOTE-TRAKKER™ voting machines to read ballots, correctly process the data, and print out the results.

Within forty days before each election, the test shall be run through each OPTICAL VOTE-TRAKKER™. The Logic and Accuracy Board certifies the test using the form in Appendix A.

2.7 LOGIC TESTING

Logic testing consists of those processes and procedures as prescribed by law necessary to ensure that the vote tally programs and hardware correctly interpret, summarize and report voters' "marking of their ballots per instruction" for a specific election.

Successful testing will demonstrate that: each candidate and ballot measure receives the proper predetermined number of votes (not one vote for every selection). The system reports the proper number of under votes. The system accepts only the proper ballot styles and rejects improper ones. The system is capable of counting the maximum number of ballots possible for a precinct.

Logic tests will be conducted using test procedures below in such a manner as to meet these guidelines. All tests shall result in matching predetermined results. All reports and test materials must be retained as prescribed by law.

2.7.1 Performance of Logic Test:

2.7.1.1 Pre-Election Testing:

An election's specific Logic Test shall be performed on 100% of the OPTICAL VOTE-TRAKKER™ voting machines to be used.

This Logic Test may begin within sixty days of the election and can be of sufficient duration to assure its adequacy.

Before conducting the Logic Test, each voting machine needs to be maintained and prepared so that all hardware is tested and documented to be functional, all required storage media is present with enough memory capacity, and the collection of ballots is loaded onto the machine to be tested.

All ballot tally program(s) and hardware must remain operative from the time of the pre-ballot processing logic test, through the processing of all voted ballots, to the post-ballot processing logic test.

Any condition which requires the OPTICAL VOTE-TRAKKER™ to be re-initialized, shall require a new set of logic testing and shall require that all ballots processed since the last successfully completed logic test be rerun.

The logic test ballots shall be tabulated, using the OPTICAL VOTE-TRAKKER™ system. The resulting logic vote tallies shall be compared in detail with the predetermined logic vote tallies. Any difference between the two logic vote tallies shall be resolved, and logic testing shall be performed as many times as may be necessary to achieve a logic vote tally, which is identical to the predetermined logic vote tally.

After testing, the logic test ballots and the documentation shall be locked in a facility with restricted access or sealed. Logs or records shall be maintained, recording each performance of the logic test and by whom.

As each voting machine is successfully tested it should be certified, identified and placed in security until needed.

2.7.1.2 Post Election Testing:

After the poll is closed and before the official canvass, conduct the system Logic and Accuracy Test on every OPTICAL VOTE-TRAKKER™ used in the election.

Following the Official Canvass, conduct a Logic Test for at least 10% of the OPTICAL VOTE-TRAKKER™ voting machines or other percentage as required by state law.

2.7.2 Preparation of Logic Test Materials:

The elections official shall cause the following logic test materials to be prepared and tested:

The logic test is designed to print and scan ballots automatically according to the test script. The process flow is summarized in the following steps:

1. Select “Run L/A Test”.
2. The test voting counts are set to zero. A message appears to the user to reset the public counter to zero.
3. Ballots are fed and scanned automatically. Test script is described in Figure 2.7.2.1A.
4. Message appears when automatic scanning is completed. Also reminds the user to document the counters.
5. Quit to get back to the Administrative screen and select “Generate Tabulation” to print the tally report.

6. User will compare printed tally report to the test script.

When polls are opened, this L/A test function is not available. After the polls are closed using the "Close Voting" function, the L/A function will be available in its same location for post election re-testing.

As long as the polls are not open, the L/A test can be performed.

A custom manual logic test can be performed. A test script consisting of test ballots can be created by jurisdiction as deemed appropriate. Each ballot is marked and scanned manually according to the script. A tally is printed from the Administrative Screen using the "Generate Tabulation" function.

2.7.2.1 The Voting Script:

To ensure complete testing, the L/A test looks at every available ballot style and votes a complete set for each ballot style loaded.

Only an English ballot can be tested. Since the multiple languages are tied directly to the English names, the only way the ballot could be incorrect is if the language was not entered in the correct column of the language export/import file. This can be checked off line from the L/A testing.

The test script is described in the following table. Contests 1 and 2 are "vote for one". Contest 3 is "vote for 3". No Vote is used to fill out a contest.

Contest 1	***Number of Votes***											***Totals***
Cand. A	1											1
Cand. B		2										2
Cand. C			3									3
Cand. D				4								4
Cand. E					5							5
Cand. F						6						6
No Vote							7	8	9	10	11	45
Contest 2												
Cand. G	1											1
Cand. H		2										2
Cand. I			3									3
No Vote				4	5	6	7	8	9	10	11	60
Contest 3												
Cand. J	1											1
Cand. K	1	2										3
Cand. L	1	2	3									6
Cand. M		2	3	4								9
Cand. N			3	4	5							12
Cand. O				4	5	6						15
Cand. P					5	6	7					18
Cand. Q						6	7	8				21
Cand. R							7	8	9			24
Cand. S								8	9	10		27
Cand. T									9	10	11	30
No Vote										10	22	32
Question 1												
Yes	1											1
No		2										2
No Vote			3	4	5	6	7	8	9	10	11	63

Figure 2.7.2.1A

For "vote for n" ballots the total number of votes cast is $(n^2+n)/2$. For this election, Contest 3 requires 66 cast votes. Since this is the longest contest, there will be 66 votes cast for this entire ballot style. The expected results are totaled on the right hand side of the table. For the shorter contests and questions, the remaining extra votes are cast as "No Votes".

The ballot types are defined by how the contests are mapped to the geographic locations used in the OPTICAL VOTE-TRAKKER™ system. The smallest region that can be defined in OPTICAL VOTE-TRAKKER™ is the ward or other sub-divisions. Wards or other sub-divisions are a subset of precincts. Each ward or other sub-divisions that is programmed into

the ballot is selected by the L/A test. If the combination of contests that are assigned to that ward or other sub-divisions is not unique to that of previously selected wards or other sub-divisions, it will not be tested. A note in the tally will say that the specific duplicate (meaning non-unique) wards or other sub-divisions were not tested.

2.7.2.2 Compare the Logic & Accuracy Testing Result:

After all the Logic and Accuracy test ballots have been cast by the voting machine, the tally report for all the ballots cast during the Logic and Accuracy test will be printed out. The tally report printed will be compared to the test script for checking the logic and accuracy of the voting unit. If any error is found, it is reported immediately for judgment. The tally report should be retained as the proof of the Logic and Accuracy test performed.

2.8 RETENTION OF TEST MATERIALS AND RESULTS

The successful logic and accuracy tests, conducted at the time of certification (or re-certification, if necessary) to the Secretary of State, storage logs or records, if any, and test reports, if any, shall be retained as long as the ballots are kept for the election as prescribed by law.

2.9 LOGIC AND ACCURACY BOARD

The elections official shall establish a Logic and Accuracy Board pursuant to Section 7.4 to complete certification of testing. Not later than seven days before each statewide election, the Secretary of State must receive a copy of the Logic and Accuracy Board's certification.

For local and district elections, the Logic and Accuracy Board members shall submit their copy of the Logic and Accuracy Board's certification to the local elections official conducting the election.

A copy of a sample certificate is attached to these procedures as Appendix A.

2.9.1 Certification of Logic Test:

Logic test requirements apply to all elections; however, submission of the seven day certification of logic testing to the Secretary of State is required only prior to statewide elections and elections to fill vacancies in the legislature or congress.

2.10 BALLOT TALLY PROGRAMS

The elections official shall send ballot tally programs to the Secretary of State as prescribed by law. These must be received by the Secretary of State no later than seven days before each statewide election.

2.11 ELECTION OBSERVER PANEL

The elections official shall establish an Election Observer Panel as prescribed by law.

2.12 HARDWARE MAINTENANCE

Voting machine equipment must be maintained in a satisfactory manner in accordance with vendor specifications.

Individual component testing, and maintenance if necessary, shall be performed county personnel trained by AVANTE within 60 days before each election. Such hardware consists of OPTICAL VOTE-TRAKKER™ voting machine and the printing module and system. If printing of ballots is to be performed by external contractor, the contractor must also be trained by AVANTE.

The Ballot Generation and central tally system includes one or more OPTICAL VOTE-TRAKKER™ voting machines, and one or more Personal Computers, with laser printer(s) with adequate resolution.

2.13 PREPARATION OF OPTICAL VOTE-TRAKKER™ VOTING MACHINES FOR PRECINCT USE

Prior to transporting OPTICAL VOTE-TRAKKER™ voting machines to polling places, the elections official shall:

1. Press the ON/Off red power button inside the left panel of the OPTICAL VOTE-TRAKKER™' machine to shut down the whole system.
2. Turn the public counter to zero by turning the counter key (located in the rear of the machine) until the display (in the front of the machine – labeled "Public Counter") reads "0".
3. Fold the top back to the voting machine.
4. Unplug the power cord and place the power cord in the rear panel of the voting machine.
5. Seal the machine by locking the panels on the left, right, and rear of the OPTICAL VOTE-TRAKKER™.

6. Move the OPTICAL VOTE-TRAKKER™ into the shipping box and close the box.
7. Ship an Un-interruptible Power Supply (UPS) back up system for each OPTICAL VOTE-TRAKKER™.

The paper record printer for use in printing zero report and tallies should be checked for a sufficient amount of paper in its roll and replaced if necessary.

NOTE: Once ballots have been stored within the OPTICAL VOTE-TRAKKER™, the machine should be locked and tagged with tamper-obvious labels and ties. Any subsequent opening of the machine (to retrieve paper records and/or storage media) should be documented and signed by polling workers and countersigned by a supervisor or overseeing body.

As required by law, when a voting machine has been properly prepared for an election, it shall be locked against voting and sealed. After that initial preparation, a member of the precinct board or some duly authorized person, other than the one preparing the machine, shall inspect each machine and submit a written report.

The report shall note the following:
1) whether all of the registering public counters are set at zero (000);
2) whether the machine is arranged in all respects in good order for the election;
3) whether the machine is locked;
4) the reading on the protective counter; and
5) serial number on the seal.

The keys to any locks used shall be delivered to the election board together with a copy of the written report, made on the proper blanks, stating that the machine is in every way properly prepared for the election.

As required by law, the election official shall deliver to the polling place the supplies necessary to conduct the election, including at the following:

- two sample ballots,
- one envelope containing the seals for sealing the machine after the polls are closed,
- one envelope for the return of the keys, and
- as many copies of the statement of votes cast as are necessary.

3 ELECTION PROCEDURES

3.1 INSPECTION AND DELIVERY OF PRECINCT SUPPLIES.

Instruct precinct inspectors to make the following checks prior to Election Day:

3.1.1 Supply Check:

1. Check that all of the allotted voting machines are present. Check the serial numbers of each voting machine to the list.
2. Check that the precinct kit is complete. This kit includes the forms necessary to complete provisional voting, log sheets, poll worker sign in sheets, and any other form or log required for Election Day.
3. Check that the polling official system access cards are complete.
4. Sample Ballots and Demonstrator Devices shall be available to the public. At least two copies of the ballot pamphlet and at least two sample ballots of each ballot type and in each language required to be voted on in the precinct.
5. County officials shall furnish to the precinct officers the following items:
   (a) Printed copies of the indexes.
   (b) Necessary printed blank forms for the roster, tally sheets, lists of voters, declarations, and returns.
   (c) Envelopes in which to enclose returns.
   (d) Not less than six instruction sheets (cards) to each precinct for the guidance of voters in obtaining and marking their ballots. On each sheet (card) shall be printed necessary instructions as prescribed by law.
   (e) A digest of the election laws with any further instructions the county elections official may desire to include.
   (f) An American flag of sufficient size to adequately assist the voter in identifying the polling place. The flag is to be erected at or near the polling place on Election Day.
   (g) A ballot container, properly marked on the outside indicating its contents.
   (h) A sufficient number of cards to each polling place containing the telephone number of the office to which a voter may call to obtain information about his or her precinct location. The card shall state that the voter may call collect during polling hours.
   (i) An identifying badge or insignia for each member of the precinct board. The member shall print his or her name and the precinct number thereon and shall wear the badge or insignia at all times in the performance of duties, so as to be readily identified as a member of the precinct board by all persons entering the polling place.
   (j) Copies of the ballot containing ballot measures and ballot instructions printed in all languages as prescribed by law.
   (k) Sufficient copies of the notices to be posted on the indexes used at the polls. The notice shall read as follows: "This index shall not be marked in any manner except by a member of the precinct board acting pursuant to Section 14297 of the Elections Code. Any person who removes, tears, marks, or otherwise defaces this index with the intent to falsify or prevent others from readily ascertaining the name, address, or political affiliation of any voter, or the fact that a voter has or has not voted, is guilty of a misdemeanor."

(l) A roster of voters for each precinct in the form as prescribed by law.
(m) In addition, the elections official may, with the approval of the board of supervisors, furnish the original books of affidavits of registration or other material necessary to verify signatures to the precinct officers.

6. A Certificate of Packaging and Sealing, in duplicate, together with a self-addressed stamped business reply envelope, addressed to the responsible elections official.
7. Seals and any other supplies and forms deemed necessary.

Report any problems to the elections official responsible for the election.

3.2 PREPARING ABSENTEE BALLOTS

Absentee ballots are paper-based ballots that are mailed to voters. The voters mark their ballots and either return the ballot in person or mail them to the county office. The ballots are then counted by hand or by using CENTRAL COUNTING OPTICAL VOTE-TRAKKER™.

If counted by hand, the vote totals can be entered manually into the VOTE-TRAKKER™ Tally module in the absentee section.

If counted by electronic means, the totals are then electronically imported into the VOTE-TRAKKER™ Tally module. OPTICLA VOTE-TRAKKER™ and DRE VOTE-TRAKKER™ are totally integrated for seamless consolidation of tallies.

3.2.1 Distribution of Absentee ballots and Sample Ballots to Voters:

Before distribution of absentee ballots to voters who request them, the ballot type numbers of the ballot and the sample ballot to be mailed shall be compared to ensure a match.

3.2.2 Preparation of Absentee Returns:

Not more than seven days prior to an election, begin preparing returned absentee ballots for counting, as follows:

1. Confirm that the voter's signature on the Identification Envelope has been verified.
2. Sort envelopes according to ballot type.
3. Open each envelope and remove the voted ballot.
4. Place empty Identification Envelopes in a designated storage area.
5. Examine absentee ballots for write-in votes, cause for rejection and damage. Process in the manner prescribed for Ballot Inspection Boards in Section 3.6.
6. Deliver processed ballots to designated official for secure storage until time for computer processing.

3.3 PREPARING PROVISIONAL BALLOTS

3.3.1 Description of Polling Place Process:

The OPTICAL VOTE-TRAKKER™ may uses the same paper ballot for provisional voters as for the normal precinct-based voters. Of course, special provisional paper ballots can also be printed and used. However, the provisional voter must filled in and signed an affidavit envelope that is used to seal his/her ballot.

3.3.2 Preparing Provisional Ballots:

Provisional voter ballot envelopes shall be printed in substantially the same form as absentee ballot envelopes, but shall be of a different color.

Procedures for voting and tallying provisional voter ballots shall be those set forth in Elections Code section 14310, the Guidelines for Processing Provisional/"Fail-Safe" Ballots in an Election, as published by the Secretary of State.

Once voting privilege of the specific voter is verified, the provisional ballot is authorized to be counted. It is recommended that verified provisional ballots be counted together rather than individually to preserve the voters' privacy. The affidavit envelopes should be open and ballots separated in a separate box for subsequent counting.

The verified ballots in random order are then submitted for scanning and deciphering. The tallies are to be consolidated in the final canvass.

POLLING PLACE PROCEDURES

3.3.3 Before the Polls Open:

1. Complete Oath of Office and Declaration of Intention forms as prescribed by law prior to Election Day.
2. Assemble voting booths and in each booth display a copy of the voter instructions.
3. Each OPTICAL VOTE-TRAKKER™ (and at least one VOTE-TRAKKER™ for accessibility) is placed in each booth.
4. Make demonstrator ballots available – these can be a voting machine, a video, or a paper display.

For each voting machine open the polls using the following procedure:
1. Plug in the OTPICAL VOTE-TRAKKER™ to the UPS battery backup.
2. Plug the UPS into an outlet.
3. Turn on the OPTICAL VOTE-TRAKKER™ (red button on the rear of the machine.)
4. Press the "Cancel" on-screen button when the "Waiting to Load" screen appears.

5. Enter passwords via the chosen method by the county (card or manual password).
6. Press "Open This VT" button to open just this one OPTICAL VOTE-TRAKKER™ or press the "Open All VT" button to open all OPTICAL VOTE-TRAKKER™ machines in the polling place.
7. A zero report will print at each machine opened.
8. Remove the zero reports, note the permanent and public counters number from the voting machines and sign off each report.
9. Place the printed record cover on each machine and place the lock that keeps the cover in place.
10. Press the "Begin Voting" button.

3.3.4 While the Polls are Open:

1. During the day, at least every hour, inspect each OPTICAL VOTE-TRAKKER™ to ensure that the machine has not been damaged or marked with graffiti or electioneering stickers. If an OPTICAL VOTE-TRAKKER™ must be replaced, follow instructions below (section 3.4.2.1).
2. Offer to instruct each voter in the proper method of marking and scanning their ballots. Offer each voter further instruction if necessary.
3. Remind the voter not to leave the voting booth until he or she has collected his or her ballot.
4. Instruct the voter about the returning ballots to the sealed ballot box.

3.3.4.1 Replacing a Malfunctioned OPTICAL VOTE-TRAKKER™:

If the OPTICAL VOTE-TRAKKER™ has malfunctioned and the problem cannot be resolved or there is doubt that the problem can be resolved, the machine must be shut down.

The OPTICAL VOTE-TRAKKER™ is powered down by holding the power button for 5-10 seconds until the screen goes black. Record what occurred prior to the machine failure that may aid in diagnosing the problem. Record how many voters voted on the machine by reading the public counter.

Secure the voting machine and put it aside away from the flow of voter traffic. Contact the county official designated to handle voting machine malfunctions for further instructions. If all of the machines fail in a polling place, use emergency paper ballots.

3.3.4.2 Printer Malfunctions:

The printer module is used for printing zero report and tallies at the end of election only. If the paper print out is jammed, replace with replacement printer.

3.3.4.3 Other System Critical Component Failure:

The OPTICAL VOTE-TRAKKER™ continuously monitors itself for component failure. If a critical component fails (one that is required for an accurate vote), the system will display an error message and shut itself down automatically.

It is not recommended that the machine be reused until a trained and authorized technician has reviewed the voting machine. Shut down the machine per section 3.4.2.1. Contact the county official designated to handle voting machine malfunctions for further instructions.

3.3.5 Absentee ballots:

3.3.5.1 Surrender of Absentee ballot:

No person to whom an absentee ballot was issued is permitted to vote at the polling place unless he or she surrenders the ballot. The absentee ballot is to be marked "SURRENDERED" and placed in the container marked for spoiled and unused ballot cards. The voter is then permitted to vote in the normal method for the precinct.

By surrendering their ballot, the voter is given one additional chance to spoil their ballot. The third ballot must be the final cast ballot.

3.3.5.2 Voter Does Not Surrender Absentee Ballot:

Any person to whom an absentee ballot was issued may vote a precinct voter ballot provisionally (see Section 3.3. above) without surrendering the original ballot. Instead, by providing precinct officials with a statement, signed under penalty of perjury, that the voter has not voted and will not vote any other ballot in that election.

3.3.5.3 Voted Absentee Ballot: Sealed, Return to Polling Place or Elections Office:

If a voter returns his or her voted absentee ballot, verify that the ballot is sealed and that the signature of the voter is on the identification envelope. The elections official may require any person who returns an absentee ballot in person, either to a polling place or to the election office, to sign a log or record before depositing his or her voted and sealed ballot in the specially marked container.

If a person other than the voter returns a voted absentee ballot, the poll worker shall follow the procedures established by the election official.

3.4 CLOSING OF THE POLLS

The following procedures must be completed in public view.

1. Promptly at the designated time for closing polls declare, "The polls are closed."
2. Any voter in line at the closing must be allowed to vote.
3. No one who arrives after the designated time may vote unless a special court order and other proper authority is given to allow after hour voting. All after hour voting must be treated as special "after hour provisional voting". The after hour provisional must sealed in a signed affidavit envelope. They must not be counted until final canvassing at the central office of the jurisdiction.
4. Scan and tabulate official ballots:
   a) Break the seal for the official ballot box and empty all ballots inside the ballot box.
   b) If the computer is set up for voters to scan and review their marked ballot, enter poll worker passwords (either manually or by card) to exit the "Scan & Review" screen.
   c) Run the "Scan & Tabulate" program.
   d) Scan all paper official ballots.
   e) Tabulate the scanned result.
   f) Print out the tally report from the printer.
5. Remove printed tally report.
6. Check counters and record on tally report.
7. Export the tally files onto a removable storage media (CD-R or flash memory card).
8. Remove the tally file storage media and put the disk into the official envelope for tally file.
9. Count all official records against the number of voters and log number.
10 Collect all official paper ballots and sealed them in the ballot box.

3.4.1 Count Contents of Ballot Box for Absentee, Provisional, Paper Ballot Returns:

1. Absentee ballots, if any.
2. Provisional voter ballot envelopes, if any.
3. Precinct paper ballots voting (do not separate from write-in envelopes or ballot stubs.)

3.4.2 Complete the Ballot Statement, Showing:

1. Total number of official ballots received from the elections official.
2. Number of unused ballots.
3. Number of provisional voter ballots.
4. Number of precinct voters.
5. Number of voters using a paper ballot.
6. Number of voted Absentee Ballots collected.
7. Number of non-voted Absentee Ballots collected.
8. The sum of the number of spoiled ballots, unused ballots, provisional voter ballots, and precinct voters should equal the number of official ballots ballots received from the elections official.

An explanation of any discrepancy is required in writing.

Reconcile the number of precinct voter voted ballots to the number of signatures in the Roster-Index. Explain any discrepancy.

One copy of the statement of return of votes cast for each machine shall be posted upon the outside wall of the precinct for all to see.

3.4.3 Complete the "Certificate to Roster" showing:

1. The name(s) of person(s) who, after signing the Roster, failed to vote because of challenge, or other reason.
2. The number of persons who voted in the precinct.
3. A certification to the accuracy of the Ballot Statement.
4. The signatures of all board members.

3.4.4 Process Voted Ballots:

If voted absentee ballots were placed in the ballot box, leave Identification Envelopes sealed, enter the number of such ballots in the appropriate space on the Certificate of Packaging and Sealing, and place the ballots in the designated container for return to the elections official.

Enter the number of provisional voter ballot envelopes removed from the ballot box in the appropriate space on the Certificate of Packaging and Sealing, and place the ballots in the designated container.

Enter the total in the proper box on the Certificate(s) of Packaging and Sealing and elsewhere as directed. This total should agree with the number of precinct voted ballots on the Ballot Statement.

Place all voted ballots and storage media (CD-R or flash memory or floppy disk) to be processed on election night in the appropriate sealed return container.

Close the return container and seal with a tamper-proof seal.

3.4.5 Packaging for Return:

Seal OPTICAL VOTE-TRAKKER™ storage media, printed reports, absentee ballots, and provisional voter ballots in containers(s), as directed.

Seal Roster-Index, precinct index, purged voter index, and write-ins tally sheets, if any, as directed.

Package or seal all other supplies, as directed.

Seal voting machines as follows:
1. Remove voting machine power cord from UPS and wind on brackets on the back of the machine.
2. Seal all compartment doors.
3. Fold privacy screen over display area and secure.
4. Unplug UPS from outlet.

3.4.6 Certificate of Packaging and Sealing:

Verify that the numbers of precinct voters, absentee ballots, CD-R, floppy disks if used, flash memory, paper printouts, and provisional voter ballots have been correctly entered on the Certificate of Packaging and Sealing. Verify that the required materials have been placed into the appropriate container or containers, listing the materials inserted in each container and indicating that the container or containers were appropriately sealed.

After all entries have been completed, each member of the board shall sign the Certificate. A member of the precinct board other than the members who return the ballot container should mail the original Certificate to the election office. A self-addressed stamped envelope may be provided for this specific purpose.

A copy of the Certificate shall accompany the ballot container to the central counting location.

3.4.7 Returning Voted Ballots:

Return all ballots and supplies as directed by the elections official.

At least two precinct board members must accompany all ballots until they are in the custody of the elections official and a properly executed receipt has been provided.

Do not release ballots to custody of any other person without first obtaining a receipt.

3.5 SEMI-FINAL OFFICIAL CANVASS PROCEDURES AT CENTRAL AND REMOTE COUNTING LOCATIONS

3.5.1 Report Preliminary Absentee Voter Tally Results:

Report preliminary absentee vote counts, compiled as prescribed by law, to the Secretary of State immediately following the close of the polls. This requirement shall apply to all elections for which election results are reported to the Secretary of State.

3.5.2 Appointment of Boards:

The elections official responsible for the conduct of an election shall appoint boards to carry out the following semi-final official canvass functions:

- Absentee Voter and Provisional Voter Ballot Processing (see 3.6.4)
- Logic and Accuracy Testing (see Section 7.4)
- Seal and Container Inspection (see 3.6.5)
- Ballot Data Storage Media Inspection (see 3.6.6)
- Ballot Data Processing (see 3.6.9)
- Ballot Duplication (see 3.6.7)
- Write-In Ballot Processing (see 3.6.8)
- Ballot Storage (see 3.6.10)
- Elections Observer Panel (see Section 7.3)
- Other boards deemed necessary by the responsible elections official.
- Individuals appointed may perform more than one function or serve on more than one board.

The semi-final official canvass functions listed above should be performed by a minimum of three people, when practical. Each board member shall be appointed to perform the function designated. Each person who handles ballots at the central or remote counting location shall sign the following declaration:

"To the best of my knowledge and belief, I did not tamper with any ballot, precinct header card, or ballot counting equipment, nor did I observe any other person in any way tamper or interfere with the ballot counting process."

3.5.3 Establish Audit Trails:

The responsible elections official shall establish procedures to account for all voted ballots during the semi-final official canvass. Each function listed under Section 3.6.2 (above) is designated as a tracking point, and the responsible elections official must track the receipt and processing of voted ballots by boards assigned to perform these functions.

3.5.4 Valid Votes On Ballots:

The OPTICAL VOTE-TRAKKER™ only records valid votes (except for write-in votes).

All voter intents are made clear during the review by the positive marking of ovals next to the choices before they submit their ballots. Voter is asked to make one of the three choices with ovals next contest/issue: choose a candidate (or a yes/no for an issue), choose to write-in (office contest only), or to skip the current contest/issue (abstain).

To write in a candidate, the voter must first mark the oval next to "write-in" oval. Once the write-in oval is marked, the system will automatically "extract" or "carved" out that portion of

the ballot images for manual deciphering by the polling officials in the jurisdiction office. The deciphered candidates will be listed and aggregate in alphabetical order. Only those candidates that have been actually pre-qualified will be counted. Those write-in candidates that are similar in spelling should be counted in accordance to the State election law.

A valid OPTICAL VOTE-TRAKKER™ storage media has encryption and a Cyclical Redundancy Check (CRC) code on each type of media. These codes and encryption authenticate the media as an official capture of the ballot images.

3.5.5 Over Votes:

Over votes in paper ballots cannot be prevented. Even though the voters may have been reminded of the over-voted position, it is up to the voter to correct their errors. If over-voting occurs, the contest involved will not be counted while the balance of the ballot are counted accordingly.

Those over-voted position and the ballots involved are available for manual inspection in separate file.

3.5.6 Under Votes:

An under vote is a ballot condition that arises when the voter votes for fewer candidates for an office than the number of candidates to be elected, or when the voter does not vote for or against a ballot measure.

Tracking Under Votes - Tallying the number of under votes in a manual recount will add significant time to the manual recount process, and may be done at the option of the elections official during the tally process.

The OPTICAL VOTE-TRAKKER™ records a “Skip Contest/No Vote” choice on each contest as intentional Undervote. Those contests that have been totally skipped over by the voters without marking on any choices will be considered unintentional Undervote.

The totals for both intentional and unintentional under votes will be reported with the VOTE-TRAKKER™ tally software.

3.5.7 Absentee Ballot Processing:

Absentee ballots returned to polling places on Election Day and provisional voter ballots are sealed in envelopes by precinct boards for return to the designated counting location. These envelopes shall be removed from the precinct supply kits on election night. The condition of the seals shall be inspected, and any defects shall be noted and reported as required by the elections official. Absentee voter and provisional voter ballots received on election night shall be:

- Processed in accordance with these procedures (Sections 3.4 and 3.5) and the Elections Code; and;
- Maintained in a secure location accessible only to designated persons under controlled conditions before being processed pursuant to Sections 4.1 through 4.3.

The following standards apply to determining if absentee envelopes are to be opened and the ballots counted:

SHALL BE COUNTED	SHALL NOT BE COUNTED
SIGNATURES	
A.1.a. If the voter's signature on the absentee ballot envelope does match the signature on the affidavit of registration, the ballot shall be counted.	A.1.b. If the voter's signature on the absentee ballot envelope does not match the signature on the affidavit of registration, the ballot shall not be counted.
A.2.a. If the voter printed his or her name on the signature portion of the absentee ballot envelope, and it matches the printed signature on the signature portion of the affidavit of registration, the ballot shall be counted.	A.2.b. If the voter printed his or her name on the signature portion of the absentee ballot envelope but has a written signature on the signature portion of his or her affidavit of registration, the ballot shall not be counted.
A.3.a. If two or more ballots are returned in one absentee ballot envelope, and if there are two or more signatures on the envelope, and these signatures match the signatures on the absentee ballot application(s) or on the affidavits of registration, the ballots shall be counted.	A.3.b. If two or more ballots are returned in one absentee ballot envelope with only one signature on the envelope, neither ballot shall be counted, unless they are both voted the same, then you will count one and void the 2nd one.
A.4.a. If the voter does not sign the absentee ballot envelope in the appropriate space but the signature does appear elsewhere on the envelope and matches the signature of the voter on his or her affidavit of registration, the ballot shall be counted.	A.4.b. If the voter does not sign the absentee ballot envelope, the ballot shall not be counted.
A.5.a. If the voter uses a mark or rubber stamp on both the absentee ballot envelope and his or her affidavit of registration, and the mark or stamp match, the ballot shall be counted.	A.5.b. If the absentee ballot envelope is signed using power of attorney, the ballot shall not be counted.
A.6. If a voter applies for an absentee ballot by facsimile and the original signature on the absentee ballot envelope matches the signature on the affidavit of registration, the ballot shall be counted.	A.6.b If the signatures do not match, the ballot shall not be counted.
ADDRESS	
A.7.a. If the address on the absentee ballot envelope is a different address than the one listed on the voter's affidavit of registration and/or on the voter's application for an absentee ballot, and the voter applied for an absentee ballot, the ballot shall be counted.	A.7.b. If the address on the absentee ballot envelope is a different address than the one listed on the voter's affidavit of registration and/or on the voter's application for an absentee ballot, and the voter did not apply for the absentee ballot but was instead provided one as a permanent absentee voter, or as a voter in a mail ballot precinct, or for any other reason, the ballot shall not be counted.
A.8. If the voter signs the absentee ballot envelope, but leaves the residence line blank, the ballot shall be counted.	
A.9. If the absentee ballot envelope has a mailing address instead of a residence address, the ballot shall be counted.	
DATE	
A.10. If the absentee ballot envelope is not dated, but is received by the Elections official before the close of the polls on election day, the ballot shall be counted.	

3.5.8 Seal and Container Inspection (TRACKING POINT):

Examine each sealed voting ballot container, paying particular attention to the condition of the container and seal. Note and initial on a control document the precinct number of ballot containers with broken or improperly secured seals.

Refer any defects to the appropriate board or to the elections official as directed. Forward properly sealed ballot containers for ballot data storage media inspection.

3.5.9 Ballot Data Storage Media Inspection (TRACKING POINT):

Receive, break the seal, and open the inspected containers. Remove the ballot storage media. Record the serial numbers of each storage media.

Duplicate storage media must be reported at once to an elections official. Duplicate media may be two floppy disks labeled from one machine or two flash memory cards labeled from one machine.

3.5.10 Ballot Duplication (TRACKING POINT):

Damaged paper ballots (and returned absentee ballots) shall be processed according to the following procedure:

Deliver damaged voted ballots to the appropriate location for processing. All ballots prepared as duplicates of damaged voted ballots shall be of a distinctive color, clearly labeled "duplicate," and shall be given a serial number which shall also be recorded on the damaged card. In creating the duplicate ballot, one board member shall duplicate voting positions marked on the damaged ballot. Another member shall verify that the marks on the duplicate ballot exactly match those in the damaged ballot.

Duplicates of damaged ballots shall be placed with voted ballots of the appropriate precinct for further processing, tallying, and storage.

The original ballots that have been duplicated shall be distinctively voided, placed in clearly identified containers for damaged ballots, and segregated in a secure location so they cannot be counted inadvertently.

3.5.11 Write-in Ballot Processing (TRACKING POINT):

All write-in votes detected on any scanned ballot pages will be retained and stored onto the removable storage media with the tally files. These data can be imported into the central tabulation computer and can be viewed in the "Write-In" area to be processed manually. There is no need to go back to the original paper ballot to interpret write-in votes because the image

of each write-in is captured and displayed on the computer screen. The candidate name transcribed from the "write-in" image should be entered into the "table of write-in votes" and added into the total tabulation. Write-in votes can be tabulated in batch mode.
The Write-In Processing Board shall prepare the ballots for manual tally, as follows:

1. Check the sample ballot for the precinct to determine the number of candidates to be elected to the office for which there was a write-in. If someone votes for the same write-in twice for an "n of m contest", then those votes are spoiled.
2. Examine the voting positions on the ballot for the office where the write-in vote occurs. The Board is concerned with manually assessing the write-in votes.
3. Refer to the list of qualified write-in candidates provided by the elections official:
   - If the name written in is not on the list, write VOID across the name. Place the machine report in the designated container.
   - f the write-in vote is for a qualified candidate in the precinct, place the machine report in the container designated for valid write-in votes, if such votes are to be tallied by a separate board. If the board examining the ballots with write-ins is assigned to tally them, they shall do so, using the result sheets and other control documents provided.

3.5.12 Ballot Processing Shall:

1. Be done in the presence of at least three people, one of whom will be the system operator who is responsible for managing and monitoring system operation and reporting.
2. Utilize one operator assigned to each tally computer. If operators are changed or rotated for any reason, the changes shall be written in the log with the name of the operators involved, and with the time of and the reason for the change.
3. All tally computer operators shall be supervised.
4. Maintain an audit trail that links operators and ballots to specific tally computers.
5. Maintain a record or log of the sequence in which precincts were processed along with a recording of system irregularities in processing.
6. Separate CD-R (or floppy disks) that cannot be read by the tally computer. These CD-R (or floppy disks) must be identifiable to the precinct from which they are separated and delivered to the proper board for resolution. This includes such items as damaged CD-R (or floppy disks) or CD-R (or floppy disks) in the incorrect precinct. The backup media labeled from the voting machine of the damaged CD-R (or floppy disks) is then used for the tally. Also the paper tally can be entered manually if no electronic media is available.
7. Maintain CD-R (or floppy disks) together by precinct for delivery to the Storage Board.
8. Produce election results bulletins as required.
9. Report election results, as specified, to the Secretary of State for statewide elections and specified special elections.

3.5.13 A Ballot Storage Board Shall:

1. Receive directly from the Ballot Processing Board all storage media, accompanied by the appropriate paper reports, for each precinct.

2. Secure all voted ballots until the final logic and accuracy test is run following the semi-final official canvass.
3. Following the final logic and accuracy test for the semi-final official canvass and during the official canvass, all voted ballots and appropriate precinct reports must be maintained in a locked and sealed room or containers any time the ballots are unattended.
4. A record or log noting times, place, persons involved, and reasons for breaking the seal must accompany any entry into ballot containers.
5. Following certification of election results and the period for recount requests, the ballots may be moved to storage for the ballot retention requirements of the election, provided the ballot containers remain sealed.
6. The elections official shall not open any ballot containers or permit any ballot containers to be opened except as permitted by law, or in the event of a recount.
7. For purposes of this section, all seals shall be destructible seals as defined in Section 1.2.8.

3.5.14 Certification of Unescorted Personnel:

All unescorted persons present within the security area, including visitors, media representatives, and standby personnel, shall be clearly identified by a badge or other means and a log of their arrival and departure times.

All unescorted personnel shall be subject to restrictions established by the responsible elections official to ensure the efficiency and integrity of the vote tallying process.

4 OFFICIAL CANVASS AND POST-ELECTION PROCEDURES

4.1 PURPOSE OF THE OFFICIAL CANVASS

The Official Canvass consists of a post-election audit of the voting precincts' returns and the absentee ballot returns. The purpose of the Official Canvass is:

- To validate the outcome of the election by verifying that there were not more ballots cast than the sum of the numbers of voters who signed the precinct Roster/Index and who applied for and were issued absentee ballots;
- To account for all official ballots produced for the election; to ensure that all required certificates and oaths were properly executed by the precinct board; and,
- To verify the accuracy of the computer count by manually recounting the voted ballots from at least one percent of the voting precincts and comparing the manually-tallied results to the computer-generated results.

Each Official Canvass function must be performed by a minimum of three persons (in order to achieve a majority decision when required).

4.2 CANVASSING PRECINCT RETURNS

4.2.1 Process Provisional Ballots:

1. Verify eligibility of persons who cast ballots provisionally according to the Guidelines for Processing Provisional/"Fail-Safe" Ballots in an Election, as provided by the Secretary of State.
2. Write the reason for rejection on envelopes of ineligible voters. Place unopened envelopes with election materials to be retained for the period prescribed by law.
3. Open envelopes of eligible voters together and remove all Provisional ballots and place them in separate pile in random order.
4. Enter the ballots into scanner of OPTICAL VOTE-TRAKKER™ so assigned for verified provisional voting.
5. Tally the provisional vote on the OPTICAL VOTE-TRAKKER™ once all ballots have been entered.
6. Process in the manner prescribed for Ballot Inspection Boards in Sections 3.6.6 through 3.6.10.
7. Identify original or duplicate provisional ballots by precinct and deliver to the designated official for updating computer tallies.

4.2.2 Examine the Ballot Statement:

Compare the number of official ballots reported as "received" by each precinct to the number issued by the elections official. Resolve or explain any discrepancy.

Verify that the number of ballots voted (including those voted provisionally), plus spoiled and unused ballot cards equals the number received by the precinct. Resolve or explain any discrepancy.

4.2.3 Reconcile tallies:

1. Compare the number of signatures in the Roster-Index to the number of precinct voter ballots reported on the Ballot Statement. Resolve or explain any difference between the two.
2. Compare the number of ballots voted by provisional and precinct voters to the precinct's computer tally. Resolve or explain any discrepancy.
3. Locate any ballots not counted on election night because of damage, invalid identification marks, improper orientation, or any other reason.
4. Search election supplies and equipment, including unused and spoiled ballots, write-in envelopes, ballot containers, etc., for ballots not accounted for.
5. Count voted ballots, manually or by voting machine, without counting races. If the original computer count proves to be incorrect, ballots must be reprocessed through the ballot counting program.

4.3 CANVASSING ABSENTEE BALLOTS

The elections official is accountable for absentee ballots to the same extent, as nearly as practicable, as for precinct ballots. Standards for determining whether to count or not count an absentee ballot are listed in Section 3.6.4 of this document.

1. Prepare a Ballot Statement for each ballot type or special absentee voter "precinct" showing the number of ballots produced (received), any defective ballots received from the vendor, spoiled or damaged ballots, the number of returned ballots that were challenged, and the number to be counted.
2. Reconcile the statement to demonstrate that the total of unused, defective, spoiled, issued, and replaced ballots equals the number received. Resolve or explain any discrepancy.
3. Compare the computer count to the number of ballots to be counted, as shown on the Ballot Statement. Resolve or explain any discrepancy as described in Section 4.2.3.
4. Process any outstanding ballots not counted in the semi-final official count in the manner prescribed in Section 3.6.

4.4 CANVASSING WRITE-IN VOTES

1. Examine the write-in ballots that were processed by Ballot Inspection Boards, separate Write-in Processing Boards, Absentee ballot Processing Boards or Canvassing Boards to verify that the names written in are for valid candidates.
2. Tally valid write-in votes by precinct, or absentee ballot type, and summarize by Jurisdiction.
3. Prepare "Statement of Write-in Votes" for inclusion in the official "Certified Statement of Election Results."

4.5 AUTOMATIC MANUAL RECOUNT OF ONE PERCENT OF THE PRECINCTS

4.5.1 Validate Accuracy of the Computer Vote Count:

For the purpose of validating the accuracy of the computer count a one percent manual recount is required by state law. Manual recount must be done within fifteen days after every election at which the OPTICAL VOTE-TRAKKER™ system was used. This manual recount process must be held in public. At least one percent of the precincts, chosen at random (except as described in Section 4.5.3, below), shall be conducted. That is, all of the voting units used for those precincts selected will be manually recounted.

The manual recounts should use the original paper ballots that have been marked and verified by the voters. The electronic tallies should include all candidates and ballot measures voted on in each of the precincts and on each card reader used to count provisional ballots.

If the random selection of precincts results in an office or ballot measure not being manually recounted, as many additional precincts as necessary shall be selected and manually recounted as to any office or ballot measure not recounted in the original sample.

Each of the candidates and choices on the voter verified paper ballots include an identifier to facilitate manual recount. The manual recounts by hand are checked against the electronic tallies of each voting unit.

If desirable or deemed necessary, individual paper ballots can be checked against the ballot image stored in the voting unit. By entering the voting session identifier, the individual ballot images stored by the hard drive and the flash memory can be displayed for one-to-one direct comparison.

4.5.2 Precincts Selected Randomly:

Precincts selected at random as prescribed by law shall be chosen by an individual who is designated by the responsible elections official and who is not the same person responsible for

programming the ballot counting computer program. Selected precinct numbers shall not be revealed to computer programming personnel until the semifinal-official count is complete.

4.5.3 Equipment Failure:

In the event that a processor, preprocessor, or voting machine fails after the semi-final official or official ballot tally process has begun. Then, regardless of whether or not the equipment is to be returned to service following repair and successful processing of the prescribed logic and accuracy tests, the ballots from the last precinct tallied on the equipment prior to the failure shall be included in the automatic manual recount.

If a discrepancy is discovered between the automated tally and the automatic manual recount tally, each precinct's ballots which had been read and processed by the failed equipment, subsequent to the time of the last successfully completed logic and accuracy test by the failed equipment, shall be tallied again.

4.5.4 Valid Marks:

This section applies to absentee ballots and other emergency paper ballots: The rules and procedures set forth in Section 3.6.4 concerning the interpretation and counting of valid marks, shall be followed during the automatic recount of ballots.

OPTICAL VOTE-TRAKKER™ allows automatic evaluation of voter intent by reviewing the difference in tallies according to the level of filled in ovals. For example, the jurisdiction can ask the system to tally the votes by 10% filled vs. 50% filled to compare with the suggested 20% filled ovals. If the difference in either low or higher end of fills exists to present different election results, these ballot images involved can be presented or printed for manual inspection.

4.5.5 Reconciliation of Counts:

If the manual recount produces different results than the computer vote count, the elections official shall determine the reason for the difference and either reconcile the two totals or provide documentation of why that is not possible.

4.6 UPDATE COMPUTER COUNTS

This may be done as often as the elections official deems necessary during the canvass process.

1. Run Logic and Accuracy tests and confirms results.

2. Verify the count of provisional voter ballots and add those ballots from election night or found during the canvass. Add the absentee ballots of the appropriate type and for the correct precinct or ballot type.
3. Process ballots, by precinct, or ballot type, through the voting machine and ballot counting program. Compare new computer counts to Ballot Statements. Resolve or explain any remaining discrepancies.
4. If the original computer count for any precinct has been found to be incorrect, or if there are precincts in which unresolved discrepancies remain, the ballots from such precincts, with appropriate precinct header information, shall be reprocessed through the ballot counting program. Compare new computer counts to Ballot Statements. Resolve or explain any remaining discrepancies.
5. Upon completion of update session, rerun Logic and Accuracy Tests and confirm results.

4.7 CHECKING UNUSED BALLOTS

Unused ballots may be present if ballots are pre-printed at the central office. These ballots can simply stored along with the rest of the used ballots. Once the voting unit is closed for tallying, they will not be able accept any additional voting even if the ballots may be otherwise valid.

Election personnel in the office of the election official will seal or deface unused absentee ballots and other paper ballots that have been printed. The elections official should inspect and count unused ballot cards as necessary to reconcile the ballot count during the official canvass.

4.8 RETENTION OF ELECTION MATERIALS

Retention of election materials after the official certification of the election results applies to the handling, security and disposition of unused ballots, and other election materials. The electronic records of ballot images and event logs and paper records of all ballot images are part of the election materials that must be retained for possible review and investigation.

The retention period for ballots and related election materials is six months for all elections if no federal elections are involved.

The federal election retention period is twenty-two months. Retention periods may be extended in the event of a court challenge.

4.9 ADHERENCE TO ESTABLISHED PROCEDURES

All operations associated with the official canvass and post-election procedures shall be performed in accordance with the applicable control and security provisions of Sections 3.6 through 4.8.

No operation or activity that may results in a revision to voting data produced by the semi-final official canvass shall be performed without the presence of properly authorized observing body. These body include a properly-constituted Election Observer Panel, Logic and Accuracy Board, or an equivalent administrative and technical control body authorized to verify the correctness of the operations and responsible for maintaining accurate and complete audit records.

5 MANUAL RECOUNT PROCEDURES

5.1 REQUEST FOR RECOUNT

A request for a recount and the conduct of the recount shall be made as prescribed by law.

5.2 PUBLIC OBSERVATION

The recount shall be conducted publicly.

5.3 APPOINTMENT OF SPOKESPERSON

Upon request, the elections official shall determine the candidates and or campaigns or others that are parties of interest in the recount, and each party of interest shall appoint a spokesperson who shall act as a contact person between the elections official and the party of interest. The spokesperson shall be authorized by the party of interest to make final decisions on behalf of the candidate or campaign.

The spokesperson shall have access to all parts of the recount area when accompanied by an election official. The spokesperson may appoint other persons to observe the recount process, the number and activities of such persons depend on procedures established by the elections official.

5.4 ORDER OF PRECINCTS

The person requesting the recount may specify the order of precincts to be counted. They may specify whether the recount begins with precinct ballots, absentee ballots, provisional ballots, or other types of ballots.

In the absence of such a request, the elections official shall determine the order in which precincts are counted.

The candidate or campaign, or the designated spokesperson, must request any change to the order in writing.

5.5 BALLOT SECURITY

The elections official shall provide for the security of ballots during the recount process. Any security measures in addition to those determined necessary by the elections official, and that are requested by the voter requesting the recount shall be approved by the elections official, and the cost of these additional measures may be added to the cost of the recount.

5.6 COST OF RECOUNT; DAILY DEPOSIT

The voter filing the request seeking the recount shall, before the recount is commenced, deposit with the elections official a sum as required by the elections official to cover the cost of the first day of the recount.

For subsequent days, no later than 3:00 PM the day before each day's recount, the requestor shall pay to the elections official a sum sufficient for the next day's recount, as determined by the elections official. If the advance deposits are not paid, the elections official will terminate the recount.

5.7 EXAMINATION OF BALLOTS AND OTHER MATERIALS

Any research, review, or handling of relevant election material shall be done at the discretion of the elections official.

Requests to research, review, or handle relevant materials must be in writing and must be received by the election official before the recounting of ballots is complete. The requestor shall pay all additional costs to complete the research or review.

One or more representatives of each party of interest, as determined by the election official, may be present for any research or review of relevant materials conducted under this section.

5.8 INTERFERENCE WITH THE RECOUNT PROCESS

No person appointed as an observer may interfere with the recount process. All questions must be directed through the designated spokesperson directly to the elections official or his or her designee.

No questions or remarks of any kind may be directed to any member of the recount board.

No observer may touch or handle ballots or ballot storage media.

5.9 PROCEDURE TO CHALLENGE BALLOTS

Ballots may be challenged as prescribed by law.

The elections official shall, prior to the recount, establish a procedure for review and resolution of challenges. This procedure shall include, but is not limited to, notice to all interested parties of the rules, regulations, and procedures that will be used to resolve challenges.

5.10 HOURS OF OPERATION

Prior to the beginning of the recount, all parties will be notified of the hours of operation.

5.11 BALLOT SUPERVISION

At least two persons will attend to the ballots at all times during the recount, including breaks and lunch periods.

Recount boards will be permitted break periods in the morning and afternoon, in addition to a lunch break.

Recount boards will not stop for a break or lunch while recounting a precinct.

5.12 CORRECTING DEFECTIVE BALLOTS

Defective ballots (paper ballots, absentee ballots, emergency paper ballots, provisional or after-hour provisional ballots) may be corrected so that the automatic tabulating equipment shall count every vote cast by the voter.

If necessary, a true duplicate copy of the defective ballot shall be made and substituted therefore following the intention of the voter insofar as it can be ascertained from the defective ballot.

6 ELECTION SECURITY PROVISIONS

6.1 BALLOT COUNTING SYSTEM SECURITY

The elections official shall ensure the protection of the election tally process from intentional manipulation, fraudulent manipulation, fraudulent and intentional manipulation, malicious mischief, accidents, and errors. Each Jurisdiction shall:

1. Establish procedures to identify changes to the ballot tallying system, including dates and times that files are created, modified, or accessed, and by whom. These procedures must also include a check list and sign-off requirement for the system proofing tasks outlined in Section 2.
2. Establish procedures for the physical protection of facilities, and data and communications access controls; including intrusion and fire alarms, temperature and humidity sensors, etc. The procedures shall also include provisions for locked facilities for computers as well as for voted and non-voted ballots and counted and uncounted ballots.

6.1.1 Contingency Plan:

Establish contingency plans for ballot counting, including either backup ballot counting facilities under the elections official's supervision, or a reciprocal agreement with a neighboring OPTICAL VOTE-TRAKKER™ Jurisdiction to count ballots in the event of hardware failure.

In addition to the ballot counting program sent to the Secretary of State, each elections official shall store another copy of the ballot counting program in a off site secure-but-readily-accessible location.

6.1.2 Procedures: Internal Security:

Establish procedures for internal security, i.e., the protection of ballot counting hardware and software from fraudulent manipulation by persons within the elections office. These procedures must provide for:

- Restricted access to ballot counting hardware and software;
- Individual passwords which must be complex and frequently changed;
- Physical protection of all non-voted absentee ballots, as well as of all tallied and non-tallied ballot storage media, by use of logs to chronicle their quantity, use, and access before and after the election.

A complete copy of each election official's security procedures shall be on file in the office of the elections official for public inspection.

6.2 AUDIT TRAILS

All ballot-counting operations including mandated pre- and post-election testing must be documented in sequential order. An automated and/or manual record or log must be maintained to record the time and date of "system events" related to ballot counting. "System events" in the ballot counting process include:

- Initiation of the ballot count program
- Clearing totals
- Running logic and accuracy tests
- Hardware failures
- Repairing hardware (including running accuracy tests after repairs are completed)
- System crashes and restarts
- Communications between multiple systems
- Lost communication to remote sites
- Time communication is restarted

This log or record shall be continued until final certification of results, shall be retained for the same time period as ballots for that election, and shall be subject to the same physical security and integrity measures. Specific audit trails shall include:

Error and Exception Messages:

Exception Handling/Error messages during ballot tallying, including messages generated by the computer's exception handlers[1] or error routines (The exception handling/error message may be in (IBM) error code, English language translation, or a combination of the two). The identification code and number of hardware and software failures (their source and disposition), and the record of the operating system's data read/write/verify, parity or check sum errors and retries.

System Status Messages:

These include diagnostic and status messages upon start up of ballot tallying, "zero totals" check, and initiation or termination of voting machines.

Operator Interaction with System:

The time, operator username, and operation are noted.

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[1] Exception handlers are programming codes invoked only in the event of an error. This code may be part of either the operating system or the application program.

Ballot-Related Exceptions:

Examples are: ballot storage media are not machine-readable, ballot storage media requiring special handling, aborted or deleted precincts, etc.

6.2.1 Copies of Required Tests:

Keep multiple copies of test results.

6.3 STATISTICAL BALLOT DATA REQUIRED

The following items are critical to tracking and reporting the ballot counting process, and must be maintained:

For the Election Definition Phase:

A diagnostic proof listings of candidates and active vote positions for each ballot type or precinct, or an active vote position printout alone.

The Number of Ballots Read:

This includes within each precinct, by type, including totals for each party in primary elections.

The Total Number of Ballots Processed:

A running total of ballots processed over time is also a good audit trail.

Separate Accumulations and Reporting:

Report of the quantity of over votes (for absentee voters), under votes, and write-ins within each precinct for each contest.

Availability of the above information should be in summary and listed by precinct.

7 CERTIFICATION AND REPORTING REQUIREMENTS

7.1 BIENNIAL CERTIFICATION OF HARDWARE

Election Code section 19220 requires each election official to inspect and certify the accuracy of their voting or vote tabulating equipment at least once every two years. The elections official shall certify the results of their inspection to the Secretary of State.

7.2 HARDWARE CERTIFICATION AND NOTIFICATION

7.2.1 Certification:

All voting machines and specialized vote tabulating equipment must be certified for use in elections by the Secretary of State prior to use in any election.

7.2.2 Notification:

For each statewide election, the county elections official shall cause to be prepared a list, including quantities, of all equipment to be used to tabulate votes during the semi-official and official canvass.

7.2.3 Send Copy to Secretary of State:

Seven days before each statewide election, the elections official shall certify to the Secretary of State the results of the logic tests as well as the accurate functioning of all ballot counting equipment. This certification shall also affirm the use of the same equipment for pre-election testing and for semi-final official and official vote canvasses.

In the event of a change to the ballot tally program occurring after this certification, an amended certificate shall be submitted no later than the day before the election.

7.2.4 Amended Certification:

In the event any equipment is repaired, altered or replaced following the certification specified in Section 7.2.3 and prior to completion of the official canvass of the vote, an amended certification of logic and accuracy testing and a revised list of equipment used must be submitted to the Secretary of State. The submission of the amended certification must be made no later than submission of official canvass results.

7.3 ELECTION OBSERVER PANEL

All procedures prescribed in this Manual shall be carried out in full view of the public insofar as feasible.

In addition, the responsible elections official shall devise a plan, subject to the approval of the Voting Systems Panel, whereby all critical procedures of the vote tallying process described in this Manual are open to observation by an Election Observer Panel.

Representatives of the qualified political parties and representatives of the news media shall be among those invited to serve on this Panel and shall be given the opportunity to observe that the correct procedures have been followed in the receiving, processing and tallying of all the voted ballots.

7.4 LOGIC AND ACCURACY CERTIFICATION

A Logic and Accuracy Board shall be appointed by the responsible elections official and, insofar as is practicable, shall be comprised of the same persons prior to, during, and after the election. The Board shall have the following duties:

7.4.1 Receive From The Elections Official All Required Test Materials:

Take steps to ensure the security of said materials prior to, during, and after the election, except when the materials are properly in the possession of one of the other boards or elections officials as required by these procedures.

7.4.2 Verify The Correctness:

The program logic and accuracy test program is verified. This verification shall also be required for any of changes to the ballot or software.

7.4.3 Observe The Performance And Verify Results Of All Required Tests:

The board must not allow anyone to touch the screen of the VOTE-TRAKKER™ during Logic and Accuracy testing.

7.4.4 Note Any Discrepancies:

Record problems and affirm their resolution or correction.

7.4.5 Deliver Into The Custody Of The Elections Official:

Deliver all required test materials and printed outputs.

7.4.6 Certify to the Performance:

Certify each of the above-prescribed duties as well as those otherwise established by the procedures; provided that all members of the Board shall sign the appropriate certificate or certificates.

Final pre-election certification shall be made to the Secretary of State no less than seven days before each statewide election. The responsible elections official shall make this certification based on the Logic and Accuracy Board's certification of successful testing.

In the event an amendment to the ballot counting program is required following this certification, the elections official must immediately re-certify to the Secretary of State.

7.5 SUBMIT BALLOT TALLY PROGRAMS TO THE SECRETARY OF STATE

Ballot tally programs for statewide elections are to be deposited with the Secretary of State no later than seven days prior to each statewide election. The elections official’s certification of testing as well as the list of vote counting equipment used must accompany ballot tally programs.

Should changes be required following certification and submission to the Secretary of State, resubmission and re-certification is required.

7.6 ELECTION NIGHT AND POST-ELECTION REPORTING

Any delays in election night's semi-final official canvass reporting due to hardware, software, environmental, or human causes which result in failure to report results to the Secretary of State at least every two hours shall be reported to her or him by the 28th day following the election.

The responsible elections official may also report other delays in the processing of ballots, as he or she deems appropriate.

7.7 PREPARATION OF SPECIFIC WRITTEN PROCEDURES

Each elections official shall prepare specific written procedures for each phase, step and procedure in the preparation, operation of polling places, vote counting and official canvasses of elections. Written procedures must also include instructions to precinct officials regarding proper handling of absentee voter and provisional voter ballots as well as a description of procedures used to manually recount ballots.

These procedures must be prepared and submitted to the Elections Division of the Secretary of State's Office within two years following the adoption of these procedures by the Secretary of State.

Upon submission, the election Jurisdiction's procedures shall be reviewed for compliance with state procedures, and the elections official shall be advised of any necessary revisions.

7.8 ESCROW OF BALLOT TALLY SOURCE CODE

Prior to its use in any election, an exact copy of the source code for all ballot tally software programs shall be placed in an approved escrow facility. This escrow of source code must be performed in pursuant to the procedures and requirements of Elections Code section 19103 and Title 2, Division 7, of the California Code of Regulations, beginning with section 20610.

8 EARLY VOTING

If the VOTE-TRAKKER™ is used in "early voting" programs, as permitted by Elections Code Section 3018; the following procedures shall be used.

8.1 DEFINITION

"Early voting" is defined as a process by which a voter may vote in person at the office of the elections official or at a satellite location, prior to election day, at a time established by the elections official but within the period authorized for absentee voting.

Each "early voting" site and voting units may be required to provide all ballot styles to the voters of the county. That is, any voters of the county can go to any of the early voting polling place to vote.

8.2 TESTING

All voting machines and vote counting systems used in early voting programs shall be subject to the same testing procedures, laws, and regulations required for voting machines and vote counting systems used on Election Day.

8.3 VOTER AUTHENTICATION

8.3.1 Authenticate Identity and Residence:

As with regular absentee voting, the elections official shall authenticate the identity and residence of the voter, using the voter's signature and other information, prior to permitting the voter to cast a ballot. The elections official may require the voter to complete an application by providing his or her name, residence address, and signature. The elections official shall verify this information by comparing the name, residence address, and signature provided by the voter to the county voter registration records. The elections official shall verify this information prior to the voter signing the roster.

No vote cast according to these procedures shall be counted unless the voter's signature and residence address are first authenticated.

8.3.2 Voter is Registered to Vote:

If the voter is properly registered, he or she shall be allowed to vote.

8.3.3 Voter has Changed Residence Address:

A voter who has moved within the same county but has failed to update his or her voter registration shall be permitted to vote a provisional ballot pursuant to Elections Code Section 14310.

The elections official shall require the voter to execute a new voter registration card or otherwise update his or her registration information prior to allowing the voter to vote a provisional ballot.

8.3.4 Voters Shall Sign Roster:

All persons permitted to vote early shall sign a roster. The roster shall be in substantially the same form as specified in Elections Code Sections 14107 and 14108.

8.3.5 New Voter Registration:

If the early voting period is concurrent with the time for voter registration to be open (greater than 15 days before Election Day), then the voter may register and vote on the same day.

This voter will vote provisionally. Their ballot will be cast after their information has been verified.

8.4 PREVENTING MULTIPLE VOTING

8.4.1 Verify Voter:

The elections official shall identify, by a notation on county voter registration records or by other means, any voter who has voted in a given election.

Prior to allowing a voter to vote early, the elections official shall verify that the voter has not already voted in that election.

8.4.2 Surrender of Absentee Ballot:

A voter who has requested an absentee ballot shall be required to surrender that absentee ballot before voting in an early voting program. Otherwise, the voter shall not be allowed to vote except by casting the absentee ballot or casting a provisional ballot.

8.4.3 Record of Voting:

If a voter is permitted to cast a ballot in an early voting program, the elections official shall immediately identify that voter as having voted. This recording may include making an appropriate notation on the county registration records or by other means, apparent to all voting locations, to prevent subsequent voting by that voter in that election.

8.5 CHALLENGES

8.5.1 Same as Polling Place:

A person offering to vote early may be challenged pursuant to Elections Code Division 14, Chapter 3, Article 3, beginning with section 14240. For the purposes of challenges under this article the early voting location shall be treated as a polling place.

8.5.2 Additional Grounds for Challenge:

In addition to the grounds for challenge in Section 14240, a person offering to vote may be challenged on the grounds that he or she is not the person whose name appears on the roster of voters.

8.6 SECURITY OF VOTES

8.6.1 Tampering, Theft, Alteration:

The elections official shall ensure the security of all votes cast from tampering, theft, or alteration, and shall an ensure that the results of votes counted exactly reflects the number of voters and their exact vote choices.

8.6.2 Voting on Multiple Days:

If early voting takes place on more than one day, the elections official shall establish procedures to reconcile each day's voting activity and to ensure that votes and other activities have been recorded and securely stored.

The number of votes cast each day shall be compared to the number of voters who appeared requesting to vote and who were authorized to vote, as determined by the roster, or by other means.

8.6.3 Voted Ballots Returned to Elections Office:

Voted ballots from each day's voting shall be returned to the elections office, and an audit trail produced and preserved documenting the results from each day's voting. For the OPTICAL VOTE-TRAKKER™, this means to return to the elections office all of the voted ballots and at least one of the ballot image storage devices. The most practical one to return is the flash memory card.

8.6.4 Secure Storage:

Voting devices shall be securely stored when not in use.

8.6.5 Ballot Tally Software:

Ballot tally software for early voting shall be escrowed according to Chapter 6 of Division 7 of the California Code of Regulations.

8.7 CANVASS

No vote cast in an early voting program may be counted, and no vote count released, until 8 p.m. on the day of the election

8.8 POST-ELECTION DUPLICATE VOTE CHECK

The elections official shall compare the list of persons who voted early against the list of persons who voted in person on election day or by absentee ballot to determine if a voter has voted, or attempted to vote, more than once.

8.9 PUBLIC OBSERVATION

The processing and counting of ballots cast before Election Day shall be open to the public.

8.10 LAWS, REGULATIONS, AND PROCEDURES

Early voting shall be conducted, to the extent possible, according to the laws, regulations, and procedures governing elections in the State of California and in the jurisdiction conducting the election.

9 ELECTIONEERING

9.1 Election Office

For voting at the office of the elections official, Elections Code section 18370 prohibits electioneering within 100 feet of the elections official's office at any time a voter may be casting a ballot.

9.2 Satellite Location

For voting at a satellite location, the elections official shall take steps to prevent electioneering within 100 feet of any early voting location. These may include, but are not limited to, posting signs warning that voters may be casting ballots, selecting locations that can be effectively screened from passers by, and enlisting the cooperation of the property owner in discouraging electioneering.

10 ELECTION TEST SCHEDULE AND REQUIREMENTS

Test	Days Before or After the Election	Time Period	Vote Count Program
System Proofing	E-40 - E-10	Prior to E-7 Certification	Yes
Exception	E-40 - E-10	Prior to E-7 Certification	Yes
Election-Specific	E-40 - E-10	Prior to E-7 Certification	Yes
Logic	E-40 - E-10	Prior to E-7 Certification	Yes
Accuracy	E-40 - E-10	Prior to E-7 Certification	No
Logic	E-10	For E-7 Certification	Yes
Accuracy	E-10	For E-7 Certification	No
Accuracy	Prior to E+28	For official canvass	No
Logic	Prior to E+28	For official canvass	Yes

11 APPENDIX A

Certification by Logic and Accuracy Board

We, the undersigned, having been appointed by the elections official in the county named below to verify the logic of the computer vote count program for the election indicated below, as required by the Procedures adopted pursuant to Elections Code section 19205, do hereby certify through the Elections Official to the Secretary of State:

THAT the pre-vote counting tests, as defined in the above mentioned procedures, have been performed;

THAT the pre-vote counting test results have been compared with the pre-determined correct totals for each office and ballot measure;

THAT the cause of any discrepancy was found and corrected; and,

THAT the logic test programs, test ballot cards, and test printed output which were certified as correct by the Logic Verification Board were delivered into the custody of Elections Official.

ELECTIONS OFFICIAL'S NAME AND TITLE

COUNTY	**ELECTION DATE**
VOTE COUNTING SYSTEM	**ELECTION NAME**

PRINTED NAME OF FIRST BOARD MEMBER

SIGNATURE OF FIRST BOARD MEMBER AND DATE

PRINTED NAME OF SECOND BOARD MEMBER

SIGNATURE OF SECOND BOARD MEMBER AND DATE

PRINTED NAME OF THIRD BOARD MEMBER

SIGNATURE OF THIRD BOARD MEMBER AND DATE

12 APPENDIX B

Certificate of Biennial Inspection

I, the elections official named below, hereby certify that in the normal course of pre-election hardware maintenance and testing of our voting and vote tabulating equipment, for the election indicated below, that I have found the voting and vote tabulating equipment for the city/county named below to be operating correctly and accurately. This certificate is issued pursuant to Elections Code section 19220.

ELECTIONS OFFICIAL'S NAME AND TITLE

ELECTION DATE	**COUNTY**

SIGNATURE AND DATE

SEAL